



Downtown Meridian Parking Management Strategy & Implementation Guide + Supporting Topic Papers

January 2023

Prepared For:



Prepared By:



Acknowledgments

Parking Subcommittee Members

- Bill Truax Galena Equity Partners
- Cecyle Brock Deja Brew
- Sean Evans Meridian Chamber of Commerce
- Caleb Hood City of Meridian, Planning Division Manager
- David Winder Meridian Development Corporation Board of Commissioners
- Mark Smith Meridian Cooperative
- Tom LeClaire Transportation Commission Member
- John Overton Meridian City Council
- Jessica Perreault Meridian City Council
- Lori Jones Investment Resources of America & resident
- Miranda Carson City of Meridian, Planner
- Nick Grove Meridian Library District, Director
- Ryan Steinbroner Downtown Meridian Business Owner

Project Management Team

- Ashley Ford-Squyres Meridian Development Corporation, Administrator
- Chris Danley Vitruvian, Principal

Consultant Team – Rick Williams Consulting

- Rick Williams Project Advisor
- Owen Ronchelli Project Manager
- Pete Collins Senior Associate
- William Reynolds Senior Associate
- Connor Williams Data Analyst
- Michael Vasbinder Field Supervisor

Table of Contents

Acknowledgments	i
1.0 Introduction.....	1
1.1 The Process	2
1.2 Key Values of Downtown Meridian	2
1.3 Where to Start – A Guide to Implementation	3
2.0 Guiding Principles.....	4
2.1 Priority Users	4
2.2 Active Capacity Management	4
2.3 Information Systems.....	4
2.4 Safety and Event Concerns	4
2.5 Financial Viability	4
2.6 Roles and Coordination	4
3.0 Parking Management Strategies	6
3.1 Process Overview.....	6
3.2 Policy and Code.....	8
P1 – Formalize Guiding Principles	8
P2 – Adopt Parking Code Updates	9
P3 – Define Parking Management District Boundaries.....	10
P4 – Periodically Review Parking Citation Fees.....	11
P5 – Develop Policy for a Residential Permit Program	13
3.3 Management and Administration	15
M1 – Formalize Ongoing Parking Management Position	15
M2 – Establish Inter-Agency Communication Protocols.....	16
M3 – Continue to Convene the Downtown Parking Subcommittee.....	17
M4 – Implement Routine Data Collection	18
3.4 Residential Parking Operations.....	19
R1 – Protect Residential Parking – <i>Establishing an RPPZ</i>	19
R2 – Implement License Plate-Based Permitting in Residential Areas	21
3.5 Downtown Parking Operations.....	22
D1 – Standardize Time Restrictions	22
D2 – Reduce the Number of No Limit Stalls in the Parking Management District.....	24
D3 – Install Consistent Time-Limited Parking Signage	25
D4 – Initiate Periodic Parking Enforcement (in time-limited areas)	27
D5 – Stripe On-street Parking Stalls on Commercial Block Faces	29
D6 – Assess ADA Compliance in City-Owned Facilities	30
D7 – Facilitate Shared-Use Parking Agreements	31

D8 – Install and Expand Bicycle Infrastructure	32
3.6 Communications and Outreach	34
C1 – Enhance Parking Information Website	34
C2 – Expand “Downtown Brand” – Develop a Logo for Downtown Parking	35
C3 – Rename Public Off-Street Facilities	36
C4 – Introduce <i>Customer First</i> Parking Program	37
4.0 Summary	40
Appendix A: TP #1 – Fundamentals of Parking Management	41
5.0 Fundamentals of Parking Management	42
5.1 INTRODUCTION	42
5.2 WHY MANAGE PARKING?	43
5.3 KEY ELEMENTS OF PARKING MANAGEMENT – BEST PRACTICES	46
5.4 ADDITIONAL PARKING MANAGEMENT ELEMENTS	55
5.5 SUMMARY	56
Appendix B: TP #2 – Parking Policy & Code Review	57
6.0 Parking Policy and Code Review	58
6.1 INTRODUCTION	58
6.2 EXECUTIVE SUMMARY	59
6.3 ASSESSMENT OF CITY POLICY DOCUMENTS	60
6.4 OTHER CITY DOCUMENTS REVIEWED	63
6.5 ASSESSMENT OF MUNICIPAL CODE: Title 7 - Motor Vehicles and Traffic	66
6.6 ASSESSMENT OF MUNICIPAL CODE: Title 11 - Unified Development Code	69
6.7 SUMMARY	74
Appendix C: TP #3 – Existing Conditions – Supply & Operations	76
7.0 Existing Conditions: Supply and Operations	77
7.1 Parking Supply	78
7.2 Operations	85
7.3 Summary	89
7.4 APPENDIX C-A: OFF-STREET INVENTORY BY UNIQUE SITE	90
Appendix D: TP #4 – Understanding the Current Parking Environment	94
8.0 Understanding the Current Parking Environment	95
8.1 Executive Summary	95
8.2 Study Overview	98
8.3 Measuring Performance	106
8.4 On-Street Findings	106
8.5 Off-Street Parking Findings	113
8.6 Current Parking Environment Summary	119

8.7	Appendix D-A	120
Appendix E: TP #5 - The Parking Experience		127
9.0	The Parking Experience	128
9.1	Executive Summary	128
9.2	Introduction	129
9.3	Demographics	130
9.4	Survey Findings	132
9.5	Employees	136
9.6	Residents	141
9.7	All Respondents	145
9.8	The Parking Experience – Key Themes	152
Appendix F: TP #6 – Emerging Technologies in Parking.....		153
10.0	Emerging Technology	154
10.1	Parking Data Collection.....	154
10.2	Guidance and Wayfinding Systems.....	160
10.3	Electronic Permitting	162
10.4	Enforcement	165
10.5	Parking Payment Technology	168
10.6	On-Street Electric Vehicle Charging.....	174
10.7	Emerging Technology Summary	177

1.0 Introduction

Rick Williams Consulting (RWC), a sub-consultant of Vitruvian Planning, was retained by the Meridian Development Corporation (MDC) to examine parking management solutions for both the on- and off-street systems in Downtown Meridian. Based on a stakeholder engagement process, the following desired outcomes for the Parking Management Plan were identified:

- **Convenient and welcoming**
 - Create a parking system that lets users find a convenient space and take advantage of Downtown's walkable environment to connect to stores, restaurants, businesses, and recreational destinations.
- **Well signed and safe**
 - Clearly communicate how and where to find appropriate and available parking; make parking understandable and quickly recognizable.
 - Make it easy for users to park and get to their destination.
- **Forward-thinking and responsive**
 - Anticipate and respond to increasing demands for access to a growing downtown (Downtown is a work in progress).
 - Continue to monitor on and off-street parking levels to adjust to community changes and needs.
- **Viable**
 - Maximize the use of existing parking resources and, if necessary, construct additional parking in financially viable ways and maintain Downtown's character and appeal.
 - Ensure parking decisions are supportive of the downtown community.
- **Consensus-based**
 - Provide an integrated on- and off-street system that works for all users and supports and encourages successful public/private partnerships.
 - Ultimately, the Plan will need to have community buy-in and support.



Several strategies will have to be employed to achieve these desired outcomes, which are provided within this parking management strategy document. For example, revisions will need to occur within the municipal code to add clarity and guidance toward meeting Downtown's parking vision and accommodate commercial development by allowing more flexibility around required parking. The City, MDC, and Ada County Highway District (ACHD) will need to work together to strategically make refinements to the format of on-street parking in the Downtown, supporting ground floor commercial uses by prioritizing access for their users, encourage a “parking once” concept and increase safety measures through pedestrian improvements (e.g., better signage, lighting, sidewalk amenities). Further, code changes should allow for the formation of residential parking permit (RPP) programs in areas abutting Downtown to mitigate conflicts when commercial (and event) parking “spillover” negatively impacts the neighborhoods. Finally, in coordination with downtown parking format changes, a revamped enforcement program will provide reasonable, simplified oversight of the City's public parking system to encourage compliance and help foster a successful parking program.

The strategies recommended in this report were developed under the direction of the Parking Subcommittee.

1.1 The Process

The consultant team worked with MDC staff and the Parking Subcommittee throughout the summer and fall of 2023 to work through an iterative process to achieve a Parking Management Strategies and Implementation Guide. The process involved four (4) Subcommittee meetings, where the consultant summarized current work tasks and heard from/received feedback from the Subcommittee members. The work tasks included a general parking overview (Parking 101), the establishment of agreed-upon Guiding Principles, an in-depth policy & code review, an overview of current parking operations, a downtown parking inventory, and an understanding of current parking utilization measured over the course of two days; user perceptions of downtown parking and an outline of any applicable future technologies.

The consultant also researched and developed several important parking element areas (listed in the work scope) for the Subcommittee, providing findings in a series of Topic Papers. These papers included:

- **Topic Paper #1:** Fundamentals of Parking Management (March 2023)
- **Topic Paper #2:** Parking Policy & Code Review (April 2023)
- **Topic Paper #3:** Existing Conditions – Supply & Operations (May 2023)
- **Topic Paper #4:** Understanding the Current Parking Environment (August 2023)
- **Topic Paper #5:** The Parking Experience (October 2023)
- **Topic Paper #6:** Emerging Technology in Parking (September 2023)

Each of the six Topic Papers used available data and on-the-ground data collection/observations, incorporated research from industry best practices, and input from the public online survey and the Subcommittee members. Outcomes and recommendations were tailored to Downtown Meridian's unique parking and access environment and validated through the Subcommittee work sessions. The following recommendations were developed to improve the efficiency and usability of the existing supply and set a foundation necessary to address future growth.

Full copies of each Topic Paper and the Guiding Principles are provided as appendices to this report.

1.2 Key Values of Downtown Meridian

During this process, the Subcommittee identified key qualities that help define Downtown Meridian's character. These statements paint a picture of what Downtown Meridian means for the residents, employees, employers, and visitors who make Downtown a special place. Being the heart of the City, Downtown provides a sense of vibrancy and life. Management of the parking system should reinforce and enhance Meridian's unique qualities and character. These qualities include:

- A family friendly, small-town feel
- Great park system
- Safe and clean
- Center of everything
- Easy to get to

1.3 Where to Start – A Guide to Implementation

The strategies recommended in this guide (see **Section 3**) are extensive and will require levels of time and resources that are not currently in place. The following immediate strategies will serve to initially catalyze the Plan and set it on a path for success include:

1. Formalize Guiding Principles (P1)
2. Adopt Parking Code Updates (P2)
3. Define Parking Management District Boundaries (P3)
4. Establish Inter-Agency Communication Protocols (M2).
5. Continue to Convene the Downtown Parking Subcommittee (M3).
6. Standardize Time Restrictions (D1).
7. Reduce the Number of No Limit Stalls in the Downtown Core (D2).
8. Install Consistent Public Parking Signage (D3).
9. Enhance Parking Information Website (C1).
10. Expand “Downtown Brand” – Develop a Logo for Downtown Parking (C2).

These initial strategies should have the goal of being completed within 12 months of implementation of this Plan.

2.0 Guiding Principles

Strategies presented for consideration are intended to accomplish specific outcomes and support specific user priorities identified through the parking study process. The Subcommittee consolidated these priorities into a formal set of Guiding Principles¹. The success of any recommended strategies will be measured against these statements of priority, which include:



2.1 Priority Users

- **On-Street System (Downtown):** Preserve the most convenient on-street parking for the priority user: the customer trip.²
- **On-Street System (Neighborhoods around Downtown):** Preserve the most convenient on-street parking in the neighborhood streets around Downtown for the priority user: the resident.
- **Off-Street System:** Off-street parking resources (public and private) should serve a mix of customers, employees, and employers, and remain flexible to respond to changing needs as Downtown develops.

2.2 Active Capacity Management

- **Optimize Utilization:** Manage the public parking system using the 85% Occupancy Standard to inform and guide decision-making.
- **Shared Off-Street Parking:** Encourage shared parking in parking facilities that are underutilized within the Downtown. This will require an active partnership with owners of private parking supplies.

2.3 Information Systems

- **Branding & Communication:** Building upon past parking communication work (e.g., map), expand Meridian's parking branding and communication system for the Downtown to link parking assets and provide directional guidance, preferably under a common brand or logo.
- **Monitor & Report Utilization:** Implement performance measurements and reporting to facilitate decision-making.

2.4 Safety and Event Concerns

- **Safety Concerns.** Routinely review and evaluate parking and supporting pedestrian infrastructure to create a safe, walkable environment that ensures safety standards are being met for the current use patterns and anticipated future growth.
- **Event Concerns.** Meridian experiences a number of small and large events throughout the calendar year, resulting in spillover parking in adjacent residential neighborhoods, which adds to congestion, parking scarcity, and general safety concerns.

2.5 Financial Viability

- **Fiscal Stewardship:** All parking operations must be financially sustainable.

2.6 Roles and Coordination

¹ The full draft of the Guiding Principles document is available in **Appendix C**.

² Customer is defined here as anyone using businesses downtown by a transient trip – this includes shopping, eating, entertainment, recreating, and visiting downtown amenities. As such, a customer can be a shopper, tourist or local resident visiting the downtown.

- **Primary Role (City of Meridian):** The City's role in providing public parking is listed in priority order and includes:
 - Accommodating customer/visitor access downtown;
 - Providing (in partnership with the private sector) reasonable access for downtown employees;
 - Facilitating residential and/or guest access in neighborhoods immediately adjacent to the Downtown.
- **Primary Role (Public Sector):** Public employees' parking should lead by example where the City directs employees to park in specific stalls identified for their use, mitigating conflicts with customer parking.
- **Stakeholder Support:** Ensure that a representative body of affected private and public constituents routinely informs decision-making.

3.0 Parking Management Strategies

3.1 Process Overview

The solutions outlined below further support recommendations that grew from discussions among the Parking Subcommittee, MDC, the City, and input received from the parking & transportation survey through the public outreach process.

Implementation Timeframe

Each of the proposed parking management strategies is assigned an approximate implementation timeframe to assist with planning needs and, in some cases, sequential steps necessary to bring the strategies to fruition. The timeframes are immediate, short-term, mid-term, and/or long-term.

- **Immediate:** 0 – 12 months
- **Short-Term:** 12 – 24 months
- **Mid-Term:** 24 – 48 months
- **Long-Term:** 48+ months

However, the implementation schedule is flexible, and project order may change as opportunities and resources are identified. For those same reasons, timelines can be accelerated or extended.

Management Strategy Categorization

Each strategy is also classified within one of the following categories:

- **P:** Policy and Code
- **M:** Management and Administration
- **R:** Residential Parking Operations
- **D:** Downtown Parking Operations
- **C:** Communications and Outreach

Relative Cost

Where possible, planning-level cost estimates are provided. Final costs would require additional evaluation, scoping, and estimating. All strategies will require a level of support, coordination, commitment, and resource identification that goes well beyond what is currently in place.

For ease of reference, **Table 1** (next page) displays the estimated relative cost of each recommended strategy, represented by a series of dollar signs “\$.” The more dollar signs, the higher the cost of strategy implementation. The following symbol key provides a general cost range for corresponding parking strategies.

- **\$** \$0 - \$15,000
- **\$\$** \$15,001 - \$45,000
- **\$\$\$** \$45,001 - \$100,000
- **\$\$\$\$** >\$100,000

Nearly all recommended strategies cost less than \$45,000 to implement, most of which are less than \$15,000. There is no recommended strategy at this time (even long-term) to introduce paid on-street parking, which can be a costly capital investment (\$100,000+). This was one of the elements that contributed to the *key values of Downtown Meridian* (**Section 1.2**).

Relative Effectiveness

Strategies were also characterized by their relative effectiveness, in other words, “the biggest bang for the buck.” As such, not all strategies will have as deep an impact on parking system operations as others. The relative effectiveness is somewhat subjective but reflects the consultant’s experience and understanding of how these

elements will affect the function of the parking environment. The scale of “relative effectiveness” here is shown in the form of bullets; the more bullets, the more impactful the strategy. Using this scale can also assist in prioritizing strategy implementation, particularly if limited resources are allocated for implementation.

- Least effective
- Moderately effective
- Effective
- Very effective
- Essential to the effectiveness of the parking system

Table 1: Parking Management Strategy Summary Table

ID	Strategy	Implementation Timeframe				Relative Cost	Relative Effectiveness	Correlated Strategy Implementation
		Immediate	Short-Term	Mid-Term	Long-Term			
	Scale	◆	◆	◆	◆	\$\$\$\$	•••••	
P1	Formalize Guiding Principles	◆				\$	••••	P2
P2	Adopt Parking Code Updates			◆		\$	••••	P1
P3	Define Parking Management District Boundaries	◆				\$	••••	P2
P4	Periodically Review Parking Citation Fees		◆			\$	••	D4
P5	Develop Policy for Residential Permit Program		◆			\$	•••	P2
M1	Formalize Ongoing Parking Management Position		◆			\$\$	•••••	M2
M2	Establish Inter-Agency Communication Protocols	◆				\$	•••••	M1
M3	Continue to Convene the Parking Subcommittee	◆				\$	•••••	M2
M4	Implement Routine Data Collection		◆			\$\$	••••	M3
R1	Protect Residential Parking – Establishing an RPPZ			◆		\$	••••	P2, P5, M5
R2	Implement License Plate Based Permitting in RPPZ				◆	\$\$	•••	P5, R1
D1	Standardize Time Restrictions	◆	◆			\$	•••	P3, D3, M2
D2	Reduce the Number of No Limit Stall in the Parking Management District	◆	◆			\$	••••	D1, M2
D3	Install Consistent Time-Limited Parking Signage	◆	◆			\$\$\$	••••	C1, C2, D1
D4	Initiate Periodic Parking Enforcement		◆	◆		\$\$	••••	P4, C1
D5	Stripe or Maintain Striped On-Street Parking		◆	◆	◆	\$	•••	P3, D3
D6	Assess ADA Compliance in Public Parking Facilities			◆	◆	\$\$	••	D9
D7	Facilitate Shared Use Parking Agreements		◆	◆	◆	\$	•••	D2, D3, D4
D8	Install Additional Bike Parking		◆	◆		\$\$	•••	D3, C1
C1	Enhance Parking Information Website	◆	◆	◆	◆	\$	••••	D1, D2, D3, D4, D8, C2, C3, C4
C2	Expand “Downtown Brand” – Develop a Logo for Downtown Parking		◆			\$	••••	D3, C1, C3
C3	Rename Public Off-Street Lots		◆	◆		\$\$	•••	D3, C2
C4	Introduce a <i>Customer First</i> Parking Program		◆	◆		\$\$	•••	C1, C3, D3

3.2 Policy and Code

P1 – Formalize Guiding Principles

Action Statement

Formalize Guiding Principles as policies for the management of parking in Downtown Meridian.

Strategy Description

The Guiding Principles summarized above and detailed in **Topic Paper #3 (Appendix G)** are based on the premise that accommodating growth in the Downtown effectively will require an integrated and comprehensive package of strategies that maintain balance and efficiency within the parking system and establish clear priorities necessary to "get the right vehicle to the right parking stall." The City Council should formally approve these Principles within appropriate policy documents that define City's role in parking management (e.g., municipal code, 2025 Strategic Plan, Downtown Meridian Transportation Management Plan, etc.).

Many cities formalize their Guiding Principles within a parking element of their Transportation Systems or Comprehensive Plans.³ Others include Guiding Principles as a policy element within their municipal codes.⁴ A simpler route other cities have taken is to formally approve Guiding Principles as elements within an approved Parking Management Plan, like this report.⁵

Implementation Timeframe

Immediate

- Formalize with Council (and Board of Commissioners) acceptance of this Plan or within other document most applicable to Meridian's policy processes.

Estimated Costs

There should be minimal costs associated with this strategy other than staff time required for necessary policy and/or code changes.

³ Examples: Bend, OR and Redmond, WA

⁴ Example: Portland OR includes their Guiding Principles as policy elements within Title 33.510 of their code.

⁵ Examples: McMinnville, OR and Olympia, WA

P2 – Adopt Parking Code Updates

Action Statement

Review and implement as necessary the parking code recommendations outlined in **Topic Paper #2 (Appendix B)** as they relate to Title 7 of the City's Municipal Code. This will ensure that the parking code both informs and facilitates the parking priorities and desired outcomes of the Guiding Principles.

Strategy Description

Topic Paper #2 (Appendix B) provides a detailed account of potential code revisions that add a purpose section as well as parking management-related definitions and a clear understanding of procedure empowering the City Council to establish permits, fees/rates, and fines/citations for a broader range of parking-related activities that should be considered in the future. It is recommended that City staff and legal counsel initiate an internal process to fully evaluate the policy and code-related recommendations in **Topic Paper #2** and move forward with those deemed appropriate to improve the code's functioning and the efficiency and success of parking management in the Downtown.

In addition, City staff may want to evaluate Title 11 – Off-Street Parking and Loading Requirements. As noted in the topic paper, blending shared use-demand rather than stacking individual parking demand associated with different land use types can facilitate a more efficient use of off-street parking and help avoid overbuilding parking.

Several areas of note in the topic paper (with recommendations for revision) include:

- Title 7 – Motor Vehicles and Traffic (Chapter 2)
 - Policy guidance – purpose and intent
 - Definitions
 - City Council powers which include:
 - Parking permits
 - Parking meter fees and rates
 - Parking fines and citations
- Title 11 – Unified Development Code (Chapter 3)
 - Policy guidance – revised purpose
 - Residential uses
 - Non-residential uses
 - Shared parking

Implementation Timeframe

Mid-Term

- Initiate code review
- Complete internal City review and presentations of recommended code revisions
- Public process and Council adoption
- Publish code amendments

Estimated Costs

There should be minimal costs associated with this strategy other than staff time required for necessary policy and/or code changes.

P3 – Define Parking Management District Boundaries

Action Statement

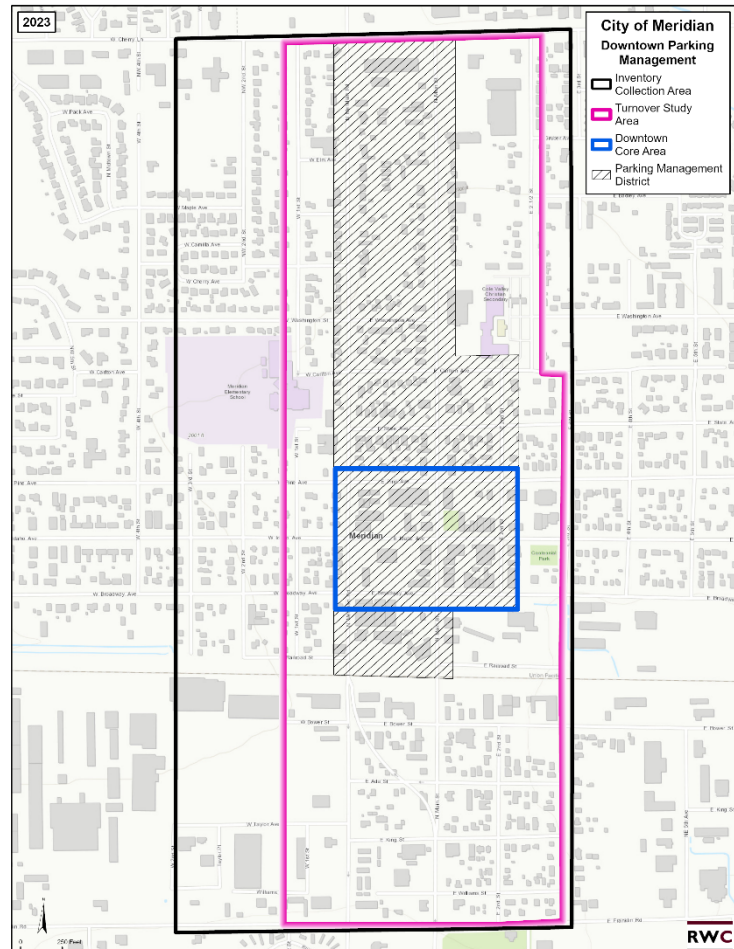
Define a parking management district boundary for Downtown Meridian. Any blocks or block faces zoned residential should be excluded from the Parking Management District. This effort should also identify a smaller internal boundary as the “Downtown Core Area”. The Core Area (a.k.a., area of highest parking utilization) will have the highest level of managed parking (see **Strategy D1** and **D2**).

Strategy Description

The parking study area for the Downtown Parking Environment paper (**Topic Paper #4**) included two areas: a Data Collection Area (black boundary line) and the Turnover Study Area (pink overlay area). For purposes of this recommendation, the suggested area would focus on the commercial areas within the pink overlay (see **Figure A** map below). Also, the parking code review indicated a lack of clear definitions of parking management districts.

Parking best practices would suggest that "parking management districts" reflect an area's unique zoning and character. Thus, downtown parking districts generally encompass city blocks that are commercial in use, with a clear focus on ground-level active businesses. Neighborhood districts encompass those blocks that are truly residential in function and use. Per best practice standards referred to above, the revision of the Parking Management District should not include any residentially zoned block faces. The figure to the right reflects the consultant's suggested boundary based on current zoning designations.

It is recommended that the City determine its definition of a Parking Management District and narratively describe that within **Title 7** of the municipal code (**Strategy P2**). Additional residential parking districts could also be designated and boundaries determined if warranted. These areas would be residentially focused, and parking programs (e.g., permit programs) processes would follow recommendations outlined in (**Strategy R1**), below.



Implementation Timeframe

Immediate

- Review and finalize boundary definition(s)
- Complete internal City presentations
- Coordinate implementation with **Strategy P2**

Estimated Costs

There should be minimal costs associated with this strategy other than staff time required for necessary policy and/or code changes.

P4 – Periodically Review Parking Citation Fees

Action Statement

As an element of good parking management practices, it is important to periodically review parking citation fees, ensuring that they reflect and reinforce the community's values, deter willful disregard of posted time restrictions, and help preserve safety within the curb space.

Strategy Description

A periodic review of parking citation fees will help keep pace with inflation and, more importantly, provide an effective deterrent for violating the posted time restriction. If there is no parking enforcement or it is performed too infrequently, many users will likely ignore timed parking and “risk” receiving a citation. That is also true if the fees for citations are set at an especially low rate that a violation is deemed “inconsequential.” That appears to be the case with Meridian; citation fees are too low to be an effective deterrent.

The current fee schedule for parking citations is as follows:

Violation Description ⁶	Fee
On the roadway side of any vehicle stopped or parked at the street edge/curb.	\$15
On a sidewalk or parkway.	
Within an intersection.	
On a crosswalk.	
On a bike lane or bike path as designated by painted lines.	
Within 20 feet of a bike path approach.	
Between a safety zone and the adjacent curb.	
Alongside or opposite any street excavation or obstruction when stopping, standing or parking would obstruct traffic.	
Upon any bridge or elevated structure upon a highway.	
On any railroad tracks.	
Any person parked past the time limit. At the expiration of the posted time limit, a new time limit may begin upon removal of the vehicle from the block, or 500 feet from previously location, for a minimum of 24 hours.	\$35
In front of a public or private driveway.	
Within 15 feet of a fire hydrant.	
Within 20 feet of a crosswalk or a bike/pedestrian curb ramp, except at an intersection where a traffic control signal is in operation.	
Within 30 feet upon the approach to any flashing signal, stop sign, yield sign or traffic control signal located at the side of a roadway.	
Within 20 feet of the driveway entrance to any fire station and on the side of a street opposite the entrance to any fire station within seventy-five (75) feet of said entrance when properly signposted.	
At any place where official traffic control devices posted at the direction or under the authority of the City or Ada County Highway District prohibit such stopping.	
In any portion of more than one (1) designated parking space.	
Within 10 feet of a mailbox, during the hours of 8:00 a.m. and 5:00 p.m., on any day that is not a federal holiday.	\$50
Within 50 feet of the nearest railroad crossing	
At any place where official traffic control devices prohibit such parking.	\$100
In such a manner or under such conditions as to leave available less than 12 feet of roadway for the free movement of vehicular traffic.	
Late payment penalty	\$10

It is also important to ensure that fee levels are not overly onerous or draconian but at an appropriate level to deter repeat behavior.

⁶ Descriptions have been edited for brevity.

Implementation Timeframe

Short-Term

- Staff review of the parking fee schedule, adjusting for inflation.
- Fees are to be set at deterrent-based levels to urge time restriction compliance and reduce repeat offenses.

Mid- to Long-Term

- Conduct periodic reviews of parking fee schedules (i.e., every 2 – 3 years).

Estimated Costs

No additional cost other than existing staff time.

P5 – Develop Policy for a Residential Permit Program

Action Statement

Develop a policy for a residential permit program to support and prioritize residential on-street parking in designated residential districts.

Strategy Description

The goal of any residential permit program is to ensure that residents and their guests have priority access on residential streets. To facilitate this, the best practice is to issue residential permits in areas where parking demands from other uses limit access for the priority users.

Residential permit programs provide a means to limit parking conflicts in residential neighborhoods that often abut vibrant commercial areas. As Downtown Meridian continues to grow, spillover parking will likely emerge as a concern for nearby residents. Therefore, establishing a policy for a residential permit program may be warranted.

Develop the municipal code language to allow for the formation of a Residential Parking Permit Zone (RPPZ) program. Initially, this will entail time/costs to the City. The initial language will focus on the purpose and need for the zones, followed by definitions. Further language would discuss the issuance of permits, placement of signs, parking regulations, parking permit violations, revocation of permits, and any associated penalties.

Policy language (supporting the municipal code) would articulate the criteria for establishing the zones (see **Strategy R1, Protect Residential Parking**).

Two components will help determine if a residential permit program is the right program:

1. **Public Outreach:** Residential parking permit programs are self-elected, meaning that a critical mass of residents in a designed boundary must voluntarily elect to become part of a residential parking permit program. As a result, through coordinating with City and/or MDC staff, and with the support of the Parking Stakeholder Work Group (PSWG), outreach and education is a critical first step to see if a permit program is desired. Outreach and communication can/should take different forms, including social media, traditional media, mailers, open houses, etc. Further, communication efforts should be transparent, thereby explaining the costs of the program for the residents as well as the benefits of having the on-street parking prioritized for the residents.
2. **Routine Data Collection:** Routine data collection will be needed to determine if a residential permit program will be effective. As the downtown commercial parking changes and evolves, those searching for long-term free parking may seek out the abutting neighborhoods. To this end, consistent data collection efforts will help provide structure to a residential permit program (e.g., district boundaries, number of permits per residential unit, guest permit allocation, visitor time stays, hours/days of enforcement, etc.).



Typically, a residential permit district boundary is 10 neighborhood blocks and requires at least 50% of addresses opting into the program for the program to become formalized. The program should strive to be cost-neutral, with permits and administrative costs recouped through the cost of the permit program.

Implementation Timeframe

Short-Term

- Draft municipal code language that establishes the authority to enact residential permit programs.

- Conduct public outreach to residents in neighborhoods adjacent to Downtown to gauge their interest in being able to enact a possible residential permit program in their neighborhood.
- Refresh data collection, if warranted, to evaluate objective parking data within the on-street parking supply of the residential neighborhood – coordinate with **Strategy M4 (Implement Routine Data Collection)**.
- Additional Permit program considerations:
 - Tying all residential permits to a license plate number, with proof that the vehicle is (a) registered to the address of the residential unit and/or (b) proof of residency in the district (e.g., water bill, electric bill, etc.)⁷
 - Consider limiting the number of permits to 2 per residential unit (at the base rate).
 - Consider graduated rates that would provide the first two permits at the base rate, allowing one additional permit at 200% of the base rate.
 - Consider reducing the residential permit limit to 1 for residential units (at the base rate) with driveways or garages. These units would be allowed 1 additional permit at 200% of the base rate.⁸
 - For multi-family residential units, the total number of allowed permits per unit would be reduced by the number of off-street stalls serving the multi-family residential site.

Long-Term

- Routinely review data and adjust permit program parameters accordingly.

Estimated Costs

Initially, staff time will be required for outreach and coordination of the program. Ideally, the permit program revenue will cover the cost of program management.

⁷ This strategy alone will significantly reduce abuse of residential permits by non-residents.

⁸ Monitoring and validating driveways and garages by address adds administrative burden to such a program.

3.3 Management and Administration

M1 – Formalize Ongoing Parking Management Position

Action Statement

Restructure or augment staff time allocated to effectively manage the parking system and implement new programs identified in the Parking Management Strategy & Implementation Guide.

Strategy Description

The success of any multi-faceted parking system depends on administration, management, and communication. This includes ongoing management of facilities, financial accounting and reporting, marketing and communications, customer service, and strategic and capital planning. As this Plan is implemented and demand for parking grows, management capacity will likely need to be augmented beyond the current status quo approach.

Implementation of the Parking Plan will likely require levels of staff effort and resources that exceed what is currently in place.

Currently, responsibilities related to parking system maintenance and management are scattered across multiple individuals at multiple agencies (MDC, City of Meridian, and ACHD). In order to have a more responsive and efficient parking system it is essential to consolidate those functions ideally into a single staff person's job description. It will be critical to identify who can and should take on these management duties given the source of supportive funds, but also from a planning and community development standpoint. Though this is not a full-time position (estimated to be between 0.25 – 0.50 FTE), having a designated person responsible for ongoing parking management will be critical to the function and success of the downtown parking system. From a strategic management point of view, there are not enough resources (i.e., staff time or money) dedicated to the role of guiding the parking system in a manner that gives due diligence to the evolving complexity of the existing system and the level of technical and response capability called for in this parking management plan. At the onset, many communities experienced the same issue. Eventually, they decided to consolidate their parking services within a single city department, repurposing an existing staff FTE or staff, specifically assigning parking issues (operations, management, communications) to a single point of contact. For Meridian, this would mean assigning parking management duties to someone through restructuring an existing FTE position within MDC or the City; this may require an intergovernmental agreement to jointly fund the position and spread the financial burden across both agencies.

This recommended approach recognizes Meridian's limited resources and allows for an efficient transition back into parking management as the current economic environment allows.

Implementation Timeframe

Short-Term

- Clarify internal (agency) responsibilities to centralize delivery of parking services. Both MDC and the City of Meridian have a shared interest in the success of Downtown, which includes the provision of parking management services. Both entities should assist with the resources necessary to fund a part-time position dedicated to parking management. Again, this could be a stand-alone part-time position or be rolled into an existing staff person's duties.

Mid-Term

- Identify and/or restructure existing FTE to create a single MDC and/or City entity responsible for parking services and implementation of the *Parking Management Strategy & Implementation Guide*.

Estimated Costs

Not known at this time. This could be restructuring an existing position(s) or a new part-time (less than 0.5 FTE).

M2 – Establish Inter-Agency Communication Protocols

Action Statement

Establish clear, standardized operational communication guidelines between the City of Meridian, MDC, and ACHD regarding the parking environment and/or curb space.

Strategy Description

As noted, clearly defined decision-making is critical to actively managing on-street parking. If decision-making is simple and transparent, then responsive changes are easily and effectively made (e.g., time restrictions, ADA stalls, exception stalls, loading zones, stall striping, meters, etc.). If a manager's ability to implement changes is cumbersome, unclear, or particularly challenging, essential parking modifications intended to support ground-floor land uses cannot happen. This can frustrate all users involved (employers, employees, residents, and visitors).

In Meridian, managing the right-of-way is not as straightforward as in some other jurisdictions. No single entity is responsible for managing parking on a day-to-day basis; instead, it falls on one of three entities – the City of Meridian, the Meridian Development Corporation (MDC), or the Ada County Highway District (ACHD). The vast majority of Meridian's road network is the responsibility of the Ada County Highway District. On-street parking striping and signage installation, informing customers and visitors of how and where they can park (e.g., time restrictions, loading zones), is done by request of ACHD but initiated by MDC. The responsibility of parking enforcement falls under Code Enforcement, which is within the Meridian Police Department under the umbrella of the City of Meridian.

Currently, requested parking changes or maintenance requests under the management of ACHD are done informally through emails. At the City of Meridian, project requests are first vetted by a volunteer transportation committee. All City staff can make these requests without a formal process or oversight. If approved, plans are then submitted to ACHD for approval. Once received at ACHD, the request must be approved by multiple departments and the ACHD Board of Commissioners. If approved, the project timeline from request to ACHD implementation is undefined.

To this end, it is recommended that the City of Meridian, MDC, and ACHD work together to establish communication protocols to ensure that change requests are:

- Standardized and adhere to a unified policy that all parties recognize and adhere to now and in the future.
- Cataloged so that a historical record is kept, creating consistency of service requests (e.g., signage request, loading zone locations, etc.)
- Invoiced properly to understand the true costs of the public parking system and to account for future budget needs.
- Recognized and relayed to enforcement operations so that enforcement can be proactive and responsive to the changing on and off-street parking environment.

Implementation Timeframe

Short-Term

- Working with all designated entities (City of Meridian, MDC, and ACHD), begin to draft language around roles and responsibilities related to parking management within downtown Meridian. Clearly outline agreed-upon communication protocols for sending and receiving information/request changes. All current and any future expectations should be very clear and easy to understand so that as staff changes, communication standards do not lapse.

Estimated Costs

Costs should be minimal. However, staff time from all three entities (City of Meridian, MDC, and ACHD) will be required for the initial drafting of communication language and ongoing coordination/updates to protocols.

Strategy M1 (Formalizing Ongoing Parking Management Position) could help shepherd this task.

M3 – Continue to Convene the Downtown Parking Subcommittee

Action Statement

Continue to convene the downtown Parking Subcommittee. At the conclusion of the project, the group will no longer be a “subcommittee,” so perhaps consider renaming the committee Parking Stakeholder Work Group (PSWG). The PSWG would consist of downtown stakeholders, City and MDC staff, and City leadership to assist in implementing strategy recommendations contained in the Parking Management Strategy and Implementation Guide. City staff would advise the City Council, and MDC staff would advise the MDC Board of Commissioners on all relevant recommendations put forward by the PSWG.

Strategy Description

Active participation by those affected by downtown parking management strategies is best accomplished through an established advisory committee or work group that reviews the performance of the public parking system, serves as a sounding board for issues, periodically review the recommendations presented in this Plan, and acts as a liaison to the broader stakeholder community as changes are implemented. MDC and the City should develop a process through which a representative cross-section of downtown interests routinely assists in reviewing and implementing this planning effort.

The Parking Subcommittee established for this Downtown Parking Assessment effort includes representation by businesses, residents, professional service providers, the Chamber of Commerce, city staff, and City Council representatives. This existing group provides a solid foundation of a representative group well versed in the key elements of the new Parking Management Strategy & Implementation Guide, and it is recommended that this group continue, by default, as the Plan transitions into the implementation phase. Members who no longer wish to participate or have consistently been unable to attend or send other representatives may be replaced through a simple application process overseen by MDC and/or city staff, ensuring broad stakeholder representation.

The PSWG would meet as necessary (at least once a year) to assist MDC and the City in implementing parking management strategies, review parking issues, and inform the City Council and the MDC Board of Commissioners on strategy implementation (via staff). In the early going of Plan implementation (immediate and short-term), meetings would likely be more frequent. The PSWG would use the recommendations in this Plan as a basis for action, discussion, stakeholder communications, and tracking progress.

Implementation Timeframe

Immediate

- Schedule regular meetings to advocate for, shepherd, track, and communicate the Plan. (MDC, or the City could host meetings through a partnership with the downtown business association).

Short-Term

- Establish business-to-business outreach.
- Facilitate data collection efforts.
- Assess Plan progress.
- Inform City Council and MDC Board of Commissioners (via staff).
- Coordinate and disseminate communications with the broader downtown business community.
- Determine and implement Plan action items.

Mid- to Long-Term

- Meet on a more frequent schedule, as warranted.

Estimated Costs

There should be no additional costs to the City if current staff time is reallocated to parking per **Strategy M1**. Costs could also be mitigated if hosting the PWG is facilitated in partnership with the downtown business association.

M4 – Implement Routine Data Collection

Action Statement

Develop a reasonable schedule of data collection to assess performance.

Strategy Description

A foundational element of this parking management plan is facilitating decision-making with accurate data. The Guiding Principles intent to use the 85% Rule (i.e., occupancy standard) will require some level of basic data collection and assist the MDC, the City, and stakeholders to separate the reality of parking performance versus perceived issues.

As such, a schedule for routine data collection should be established. The same survey methodology should be followed as was employed in the initial data collection effort (May 2023) so the findings can be used to directly compare to any subsequent data collection. The system does not need to be elaborate, but it should be consistent and structured to answer relevant questions about occupancy, seasonality, turnover, duration of stay, patterns of use, and enforcement.

Parking information can be collected in samples, and other measures of success can be gathered through third-party data collection and/or volunteer processes. Data can be used by the City and stakeholders to inform decisions, track use, and measure success.

Parking information can be collected in samples, and other measures of success can be gathered through third-party data collection and/or volunteer processes (to reduce costs).

Implementation Timeframe

Short-Term

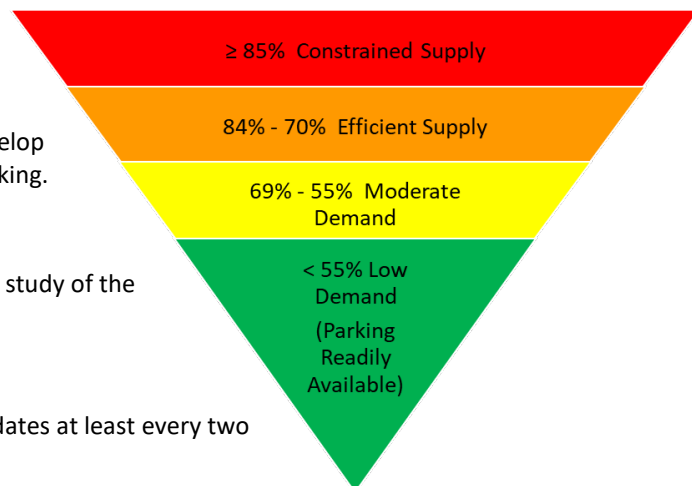
- Work with the Parking Stakeholder Work Group (PSWG), MDC and City staff to develop a data collection schedule to monitor parking.

Mid-Term

- Conduct baseline turnover and utilization study of the on- and off-street systems in Downtown.

Long-Term

- Conduct occupancy and/or utilization updates at least every two years.



Estimated Costs

The estimated cost of a data inventory and turnover/occupancy study would range from \$30,000 to \$35,000 if conducted by a third party. Costs can be minimized in subsequent surveys using the inventory and database developed for the first effort and sampling and using volunteers to collect data. Ideally, and over time, parking revenue derived from the on and off-street public parking programs would be able to partially or fully cover the cost of updates.

3.4 Residential Parking Operations

R1 – Protect Residential Parking – Establishing an RPPZ

Action Statement

Develop and adopt a policy and process for forming Residential Parking Permit Zones in residential neighborhoods adjacent to the downtown if they become impacted by parking spillover from downtown commercial growth.

Strategy Description

Residential parking permit programs are one means to minimize parking conflicts between residents and neighboring commercial areas, establishing a process that has clear guidelines for all users. With the continuing growth of the downtown, neighboring residents may see an uptick in short-term vehicle trips associated with local retail/restaurants.



Example of resident permit signage

The City will initiate the development of a Residential Parking Permit Zone (RPPZ) policy and program for future consideration and adoption by the City Council. Such a policy will outline the criteria necessary to establish an RPPZ (which will prioritize on-street parking in residentially zoned areas for residents) and provide a mechanism for the initiation of an RPPZ at the request of an affected neighborhood association.

Here is an example of eligibility criteria for establishing an RPPZ:

- **Area size (minimum).** 1) 40 individual block faces; 2) 10 blocks on all 4 sides; or 3) 8,000 linear feet of curb space.
- **Lack of parking.** On-street parking should be occupied 75% of the time at least 4 days per week, 9 months per year.
- **Commuter (employee) vehicles are the issue.** At least 25% of motor vehicles parked in on-street spaces have no clear connection to area residents or adjacent businesses.
- **Petition.** Petitions are community-led initiatives. Members of the affected community should carry out petition signature gathering. A minimum of 50% of addresses within the proposed zone would be to have to sign on. Only one signature is allowed per address.

Implementation Timeframe

Mid-Term

- Work with the local neighborhoods abutting the downtown and local businesses to craft an agreed upon policy and process for establishing a Residential Parking Permit Zone (RPPZ) program for the City of Meridian. Oregon's Transportation and Growth Management (TGM) Program's *Guide to Managing On-street Parking in Residential Areas* provides a solid framework for developing a residential parking policy. Though it is an out-of-state resource, the content remains largely applicable and would be useful to this discussion.⁹
- Establish initial and ongoing metrics that need to be in place to ensure most residents within a determined boundary agree to partake in an RPPZ. Such issues (tailored to Meridian's needs) include:
 - Process and criteria for requesting establishment of an RPPZ (i.e., petition)
 - Size of boundary
 - Hours of enforcement
 - Types and levels of enforcement
 - Number of permits per household

⁹ See <https://www.oregon.gov/lcd/TGM/Documents/ManagingResidentialParking.pdf>.

- Cost of program/permits
- Bring a policy to the City Council for adopting a Residential Parking Permit Zone program.

Long-term

- Accept formal requests by neighborhoods for the establishment of RPPZs.
- Review, approve, and implement programs.

Estimated Costs

This strategy has potential cost impacts associated with the maintenance and implementation of the program for the City. However, many cities recover costs through fees charged for the permits.

R2 – Implement License Plate-Based Permitting in Residential Areas

Action Statement

Tie residential permits to specific license plate(s) rather than bumper or window stickers and/or hangtags.

Strategy Description

In most jurisdictions, permit parking usually begins with the use of validation stickers either being applied to rear windows and/or bumpers (in some instances hangtags are used). This form of permit display, while relatively easy to administrate, can be cumbersome for enforcement personnel, depending on how they navigate their beats. As the program matures, many jurisdictions opt for assigning permits to address-validated license plates rather than using stickers or hangtags. Some communities report that residents with permits forget to display a valid permit in their vehicle and receive a citation in permitted areas. This is a common instance in many other cities, creating frustration and consuming additional administrative resources. In many cases, the citation is subsequently waived.

This situation can be significantly minimized by requiring that residential permits be tied to a specific license plate or license plates at a residence. Over time, the City could even move to an entirely electronic residential permit—a "virtual permit"—if its enforcement personnel possess handheld or mobile citation technology, which can also be license plate-based. These systems eliminate the need to distribute physical permits and can be set up to allow for the issuance of permits in an online format. If successful in the residential application, a similar approach could be explored for other displayed permit contexts that the City might offer (e.g., employee and specialty use permits).



Residential Permit Signage

Implementation Timeframe

Note: This recommendation would only be triggered following the approval and adoption of **Strategy P5 (Develop Policy of Residential Permit Program)** and **Strategy R1 (Protecting Residential Parking)**.

Long-Term

- This strategy would only be implemented assuming, **Council has already approved Strategy P5**, and that a residential area adjacent to Downtown came forward (must be community initiated) requesting the RPPZ and meeting all of the eligibility requirements.
- Enforcement personnel must be equipped with handhelds that can process whether or not a valid permit is tied to a specific license plate. This can also be accomplished with a properly software-equipped cell phone.

Estimated Costs

Some administrative costs would be associated with setting up the permits and validating vehicles registered to home addresses. Equipment and personnel costs would be more closely tied to Strategy D4 rather than this one. If the program becomes virtual, cost savings would be associated with both supplies (e.g., hangtags, stickers) and process.

3.5 Downtown Parking Operations

D1 – Standardize Time Restrictions

Action Statement

Simplify and standardize the on-street time restrictions the Downtown Parking Management District applies to all block faces in the district.

Strategy Description

In Downtown Meridian, there are 1,401 total on-street parking stalls within the Downtown study area and five (5) different use types. Over 80% of parking in the study area is unregulated, and many areas have multiple time stays on single block faces. This creates confusion, makes enforcement very difficult and inefficient, and enables abuse.

2023 On-Street Parking Inventory		
Stall Type	Stalls	% Total
All Stalls	1,723	100%
30 Minute	2	< 1%
1 Hour	35	2.0%
2 Hour	277	16.1%
ADA accessible	8	< 1%
No Limit	1,401	81.3%

Best practices recommend simplifying the parking system to the highest degree possible, using the presumption that every on-street parking customer is a first-time user. To this end, the on-street system within a downtown parking management district should be time-limited to a base standard that best supports appropriate turnover while providing a reasonable stay option for the priority user of on-street parker: the short-term customer trip. Based upon the most recent data collection effort, the following time stays are recommended for downtown Meridian:

- 2 Hour stalls have an average time stay of 1 hour and 38 minutes and have the lowest rate of violations of any stall type. This suggests these stalls are correctly calibrated to average customer needs and should serve as the customer “base standard” for on-street time-limited parking downtown.
- 1 Hour stalls should be eliminated and replaced with a 2 Hour time limit. The average stay at these 35 stalls is 1 hour and 30 minutes and 1 hour and 56 minutes, weekday and Saturday, respectively. The violation rate ranges from 20% (weekday) to 22% (Saturday). These stalls demonstrate that they are not currently meeting the needs of customers.

To this end, it is recommended that Meridian create a 2-hour limit in what will become the higher turnover Downtown Core Area established in **Strategy P3**. There would be no time limits in residential areas unless a parking permit program for a specific area were established (see **Strategy R2**). Time limits in residential parking management districts (permit areas) would be “2 Hours or by Permit” during posted enforcement hours.

The intent is to ensure that any downtown block face that abuts a commercial storefront is structured to preserve and prioritize access for customers and visitors, using a 2-hour standard. Time limits throughout the parking management district also support enforcement efforts and parking permit strategies to move employees to off-street facilities or other specifically designated areas that minimize conflicts with customers.

Implementation Timeframe

Immediate

- Work with the Parking Stakeholder Work Group (PSWG), MDC and City staff, and other stakeholders to determine an on-street time limit format for all non-residentially zoned parking within the Downtown Meridian.
- Using the existing downtown on-street inventory map, develop a sign replacement plan.



Short- to Mid-Term

- Coordinate signage design with **Strategy D3**.
- Initiate and coordinate signage changes. Coordination and communication protocols through the recommendations outlined in **Strategy M2**.
- Remove existing inconsistent signage.

Estimated Costs

The cost for this strategy should be minimal as it involves internal discussions and decision-making to determine the new, simplified time limit format.

D2 – Reduce the Number of No Limit Stalls in the Parking Management District

Action Statement

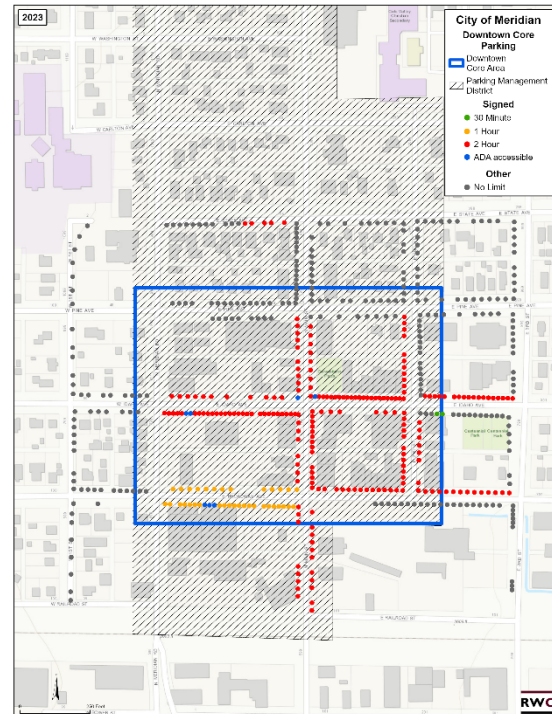
Reduce the number of No Limit stalls, or stalls that do not have a time limitation, within the Parking Management District and eliminate all No Limit stalls in the Downtown Core Area.

Strategy Description

Overall, the Downtown contains a large number of No Limit stalls; 1,401 or 81.3% of the 1,723 on-street stalls are No Limit. This is not typical in downtown areas striving to prioritize visitor trips and reasonable levels of turnover to maximize customer trips to street-level businesses. The high percentage of such stalls encourages all-day use of the on-street system by employees and residents. This should be evaluated, especially on block faces zoned commercial and abutting a street-level business.

In the Downtown study area approximately 74% of on-street stalls (910) were classified as No Limit. In the figure at right, these stalls can be seen as gray dots surrounding the Downtown Core (blue outline).

In coordination with Strategy D1 (Standardize Time Restrictions), all No Limit stalls within the Downtown Core area should be converted to 2 Hour (time limited) stalls. Additional stalls adjacent to the Downtown Core should also be evaluated for time-limited parking to encourage turnover and allow for greater access for downtown visitors. Further, any stalls within the Parking Management District (**Strategy P3**) should be evaluated to ensure they are not abutting commercial businesses and should be reformatted to a time-limited format (i.e., 2 Hours).



A representation of Meridian's Downtown Core

Implementation Timeframe

Immediate

- Evaluate all No Limit stalls within the Parking Management District and convert all No Limit stalls within the Downtown Core Area to time-limited parking.

Short-Term

- Coordinate efforts with **Strategy D1** to ensure consistent signage throughout Downtown.
- Also, coordinate efforts with **Strategy M2** (Establish Inter-Agency Communication Protocols) so that communication lines between all agencies are transparent and clear as these on-street changes occur.

Estimated Costs

The cost for this strategy should be minimal as it involves internal discussions and decision-making to determine which No Limit stalls should remain and which should be converted to 2 Hour stalls.

D3 – Install Consistent Time-Limited Parking Signage

Action Statement

Purchase and install consistent time-limited parking signage for the on-street system. This strategy can also be expanded to include the off-street system, pairing it with Downtown-branded signage package (**Strategy C2**).

Strategy Description

Findings from the 2023 inventory and ground assessment showed a range of parking signage types. Quality of signage was an issue, as well as conflicting information communicated. The inconsistency of signage (and signage design) conflicts with the goal of simplicity and understandability as factors supporting a "customer-friendly" environment.



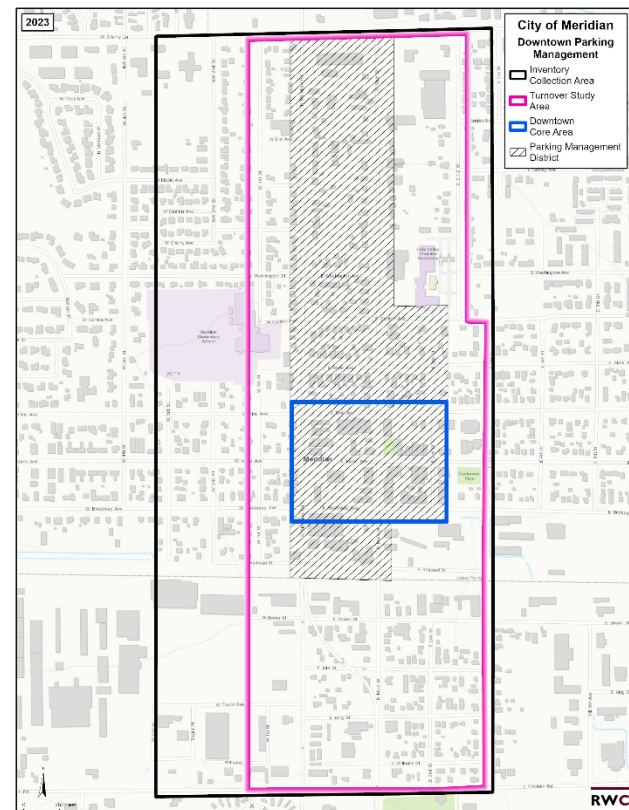
Examples of on-street signage in Downtown Meridian

It is important for the signage to be simple and standardized in design, conveying the most important information with a limited amount of text and clutter. Some communities have chosen to customize their on-street signage with their city colors, which can be effective if done correctly. However, more often times than not, a city will focus more on the design rather than the message, which can be counterproductive and confusing for visitors.



It is recommended the City of Meridian pursue the use of standardized 2 Hour signage in the Downtown Core Area (as identified in **Strategy D1**). Outside

the Core Area, but still within the Parking Management District, strategically located time-limited signage should be deployed to accommodate longer-term stays, such as 4 Hour (in closest proximity to the Core Area – identified by the blue square) and 10 Hour signs on the fringes of the Parking Management District (shown in the shaded cross-hatched area).



Implementation Timeframe

Immediate

- Identify stalls within the Downtown Core Area that need to be converted to timed parking.

- Secondly, identify appropriate time restrictions for stalls within the Parking Management District radiating out from the Downtown Core Area (e.g., 4 Hour and 10 Hour).
- Quantify the amount of signage necessary to appropriately sign each affected block face. Ideal signage would entail two (2) bookended blade signs approximately every 180 feet with arrows pointing toward the center of the block. Long blocks would require a center sign with arrows pointing in either direction towards the ends of the block.

Short-Term

- Purchase and install the new uniform signage for all time-limited on-street stalls within the Parking Management District. Deployment can be phased, as necessary, based on available resources.

Mid- to Long-Term

- Recalibrate time-limited signage based on (future) expanded Downtown Core Area using updated parking utilization data.

Estimated Costs

Based on information from other cities, estimated per-unit costs for signage components would be:

- Unit Costs for Signage¹⁰
 - Pole unit cost = \$470
 - Blade sign unit cost = \$30

¹⁰ Only material costs are provided in these estimates, no labor.

D4 – Initiate Periodic Parking Enforcement (in time-limited areas)

Action Statement

With the successful completion of standardizing time restrictions (**Strategy D1**), reducing the number of No Limit stalls in the Core (**Strategy D2**), and installing consistent public parking signage (**Strategy D3**), periodic enforcement can be initiated Downtown. Partner with the PSWG in oversight and enforcement coordination. Consider using a third-party contractor if no local resources/capacity exists.

Strategy Description

The success of any parking system begins with enforcement. Encouraging turnover and mitigating conflicts between customers/visitors and employees is difficult without a reasonable level of enforcement. If Meridian pursues a strategy of time-limiting parking in certain areas of the downtown, it will be critical that users perceive “the rules of parking downtown” as being fairly and uniformly enforced.

Implementing enforcement will require:

- Engagement of enforcement staff could be an in-house position established by the City or a contract with a third-party vendor.¹¹ The potential to coordinate an “ambassadorial” partnership with the Meridian Chamber of Commerce could also be explored.¹²
- Public outreach and education regarding the parking plan and the benefits of enforcement to a successful and vital downtown will be essential. The PSWG and the Chamber should become more prominent in coordinating with downtown business owners and sharing information regarding parking in the downtown (beginning with the Downtown Core area).



Parking enforcement in Bellevue, Washington

Enforcement costs can be minimized through a third-party contract instead of using a City code enforcement officer. Meridian may want to use an approach that allocates a specific number of hours each week (e.g., 15 - 20 hours) that would be deployed randomly over the course of an enforcement week. The cities of Hood River, Oregon, and Leavenworth, Washington, use this approach effectively. In Hood River, the enforcement officer varies the days and hours of enforcement each week and provides enforcement on one Saturday per month. In this manner, these smaller cities have limited enforcement to a less than full-time position while maximizing coverage and compliance through the random nature of the deployment. In most cities, enforcement covers its operation costs through citation fees (see **Strategy P4 – Periodically Revenue Parking Citation Fees**).

Implementation Timeframe

As noted above, this recommendation should be implemented following the completion of **Strategies D1, D2, and D3**.

Short-Term

- Evaluate and implement (as necessary) legal, policy, and code changes for establishing enforcement of time-limited parking Downtown.

¹¹ An example of a third-party enforcement program is in place in Bend, Oregon. The City of Bend contracts with Diamond Parking to provide all on-street enforcement and compliance activities in its downtown parking management district.

¹² The City of Albany, Oregon provides parking management services to its downtown through a relationship with the Downtown Albany Association (ADA). The ADA manages the Downtown "ParkWise" program, which provides day-to-day management of City-owned off-street facilities, centralizes off-street permit sales, and enforces the on-street parking system.

- Initiate discussions with the Parking Stakeholder Work Group regarding the structure and format for enforcement (e.g., in-house, third-party vendor, enforcement hours, etc.).

Mid-Term

- Develop an outreach and communications plan for public notification and education.
- Engage enforcement staff.
- Deploy enforcement and ongoing program management.
- Use the parking website (**Strategy C1**) to communicate enforcement guidelines.

Estimated Costs

Costs for enforcement in the downtown are unknown currently. More discussion regarding format, hours of enforcement, and citation fees will be required.

D5 – Stripe On-street Parking Stalls on Commercial Block Faces

Action Statement

All on-street parking in the Parking Management District should be clearly striped, creating better order and convenience for users.

Strategy Description

Industry best practices for Main Street cities indicate the lack of clear striping and signage leads to inconsistent messaging. The 2023 parking inventory found that current on-street stall striping is, for the most part, well-marked. However, some streets, particularly on streets outside of the Downtown Core, have inconsistent striping. Faded on-street stall striping (and yellow curbs) make it difficult to determine the intended vehicle spacing and the extent of legal parking in some areas. Further, striping stalls on block faces with parallel parking results in more (space for) parked vehicles in the long run than block faces without striping. It is well documented in customer satisfaction surveys that striped stalls (with corresponding signage) provide the customer/visitor with more assurance and certainty in their ability to park their vehicle lawfully without fear of being cited.

Implementation Timeframe

Short-Term

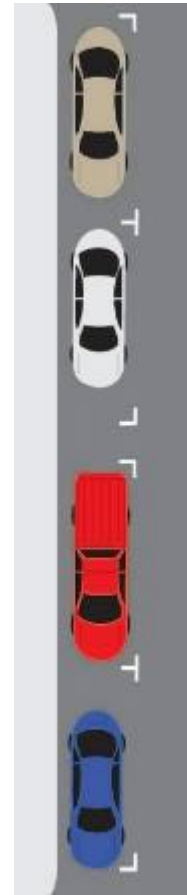
- Identify block faces in the Parking Management District (**Strategy P3**) in need of improvement.
- Stripe all on-street areas within the Parking Management District, prioritizing the Downtown Core.
- Coordinate striping with **Strategy D3** – Install Consistent Public Parking Signage.

Ongoing

- Update and refresh as necessary to assure ongoing level of quality and visibility.

Estimated Costs

In a previous study conducted for Prineville, Oregon, the city estimated it spends \$215 per block¹³ to stripe parallel parking in its downtown (see striping pattern, in-set graphic). Using this estimate, a budget of \$8,500 on-street stripe upgrades and maintenance would accommodate about 40 typical city blocks, an area similar in size to the Parking Management District. If striping were initially limited to the Downtown Core area (approximately 6 typical-sized blocks) the cost would be approximately \$1,300. This budget is likely to decrease as routine maintenance is implemented.



Simple format for on-street striping

¹³ Prevailing parking stall striping rates need to be verified with local Meridian/Boise-based vendors.

D6 – Assess ADA Compliance in City-Owned Facilities

Action Statement

Confirm that all City-owned off-street facilities comply with ADA parking requirements.

Strategy Description

All City-owned off-street facilities should be compliant with ADA parking requirements. Reaching compliance may require additional designated ADA stalls, depending on the facility's size, slope, access route planning, signage, and number of stalls. Additional information can be found at:

<https://www.ada.gov/resources/restriping-parking-spaces/>

Implementation Timeframe

Mid-Term

- Assess compliance with federal and state requirements for ADA parking.

Long-Term

- Implement necessary improvement as funding allows.

Estimated Costs

Costs associated with this strategy are related to painting, signage, and maintenance of any new ADA-compliant stalls in off-street facilities. These costs could be rolled into an assessment of necessary upgrades recommended for **Strategy D9** (and **Strategy C4**), which calls for engaging a facilities specialist to conduct physical assessments, develop cost estimates, and outline an implementation schedule.



Example: ADA compliant striping (surface lot)

D7 – Facilitate Shared-Use Parking Agreements

Action Statement

Identify off-street shared-use opportunities based on data from the 2023 off-street parking occupancy study (Topic Paper #4 – Understanding the Current Parking Environment). Establish goals for transitioning employees to off-street parking, begin outreach to opportunity sites, negotiate agreements, and assign employees to facilities.

Strategy Description

Most off-street in downtown is in privately owned surface lots. The 2023 data collection found significant surpluses in the off-street supply (see **Appendix D**). Based on the principle that “all parking should be seen as a community resource,” shared uses of privately-owned parking will be identified and pursued.

Figure I (in Topic Paper #4, shown here) illustrates the 2023 study of peak-hour occupancies in off-street lots. Of the 67 sites surveyed, 43 are occupied at levels less than 55% - potential opportunity sites for shared parking. This is an untapped resource for “getting the right parker to the right stall”—in this case, transitioning employees (and possibly downtown residents) to off-street facilities—and absorbing new demand.

With on-street time limits in place (**Strategy D1**) and code changes completed (**Strategy P2**), interest and opportunity in better utilizing (and sharing) off-street parking should increase. Creating a shared-use strategy and program coordinated with PSWG and the Meridian Chamber of Commerce is recommended.

Implementation Timeframe

Short-Term

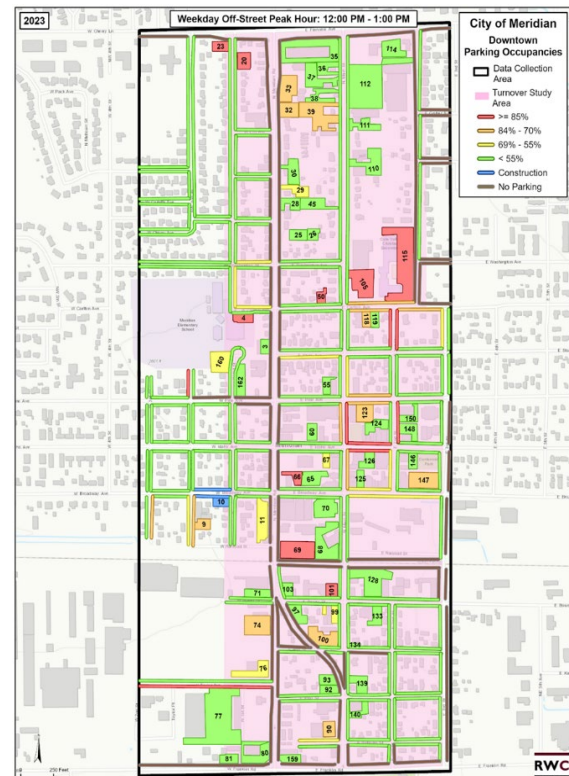
- Use 2023 occupancy data to identify facilities that could serve as reasonable shared-use opportunity sites. Criteria could include proximity to employers, a meaningful supply of empty stalls (15+), pedestrian/bike connectivity, walking distance/time, safety and security issues, etc.
- Based on the above, develop a short-list of opportunity sites and identify owners.
- Initiate outreach to owners of private lots.
- Negotiate shared-use agreements.

Mid/Long-Term

- Obtain agreements from downtown businesses to participate and assign stalls to affected employees.
- Implement an ongoing program. Continue to seek out shared-use sites with updated occupancy data.

Estimated Costs

Costs associated with this strategy would be in efforts using existing staff and/or partnerships with the PSWG and Meridian Chamber of Commerce to identify opportunity sites and conduct outreach to potential private sector participants. The City may determine that funds are needed to create incentives and/or improve the condition of facilities and connections.



Peak hour off-street occupancy heat map

D8 – Install and Expand Bicycle Infrastructure

Action Statement

Add bicycle parking at strategic locations throughout downtown Meridian to encourage bicycle use and add "parking" capacity. Continue to expand the existing bike lane network in downtown Meridian.

Strategy Description

When discussing parking management, we are not just talking about cars. Communities are increasingly turning to bicycling as a key sustainable transportation strategy, putting more time and resources into building an environment that encourages safe streets for two-wheeled travel.

Bike racks are a visible indicator of a bike-friendly community. Providing adequate bicycle parking can also expand the capacity of the overall parking supply in a very low-cost way, while encouraging local employees to consider new ways to access jobs. Bike parking is especially attractive for residents in adjacent and nearby neighborhoods looking for options to shop, dine, and recreate Downtown.

Below is a three-strategy approach for building upon Meridian's bike parking and infrastructure. This will strongly complement current and future efforts to expand the City's bike lane network.

The three-strategy approach includes:

- 1) *Sidewalk bike parking*
Identify locations for added bike parking in the furnishing zone.
- 2) *Bike corrals*
Identify locations for bike corrals on-street and in plaza areas adjacent to high-traffic businesses.
- 3) *Expansion of bike lanes and 'sharrows' in public streets*
Identify roads that would expand the current bike lane network linking key downtown destinations.

Implementation Timeframe

Short-term

- Identify on- and off-street locations for bike racks and bike corrals.
- Add high-visibility, on-sidewalk bike parking throughout Downtown, encouraging visitors to stop and shop throughout Downtown.

Mid-Term

- City staff should work with local bicycle organizations/advocacy groups to identify ways to expand the current bike network to encourage more bicycle travel/commuting.
- Expand all forms of bike parking as opportunity and feasibility allow.



Meridian: Existing Bike Rack



Bike Corral in Ashland, OR



Meridian: Downtown Sharrow

Estimated Costs

The cost of inventorying potential bike parking locations could be incorporated into the data collection portion of **Strategy M3** below. Site identification could also be done through volunteer efforts and collaboration with downtown stakeholders and bike advocates. Costs are minimal.

Estimated unit costs¹⁴ for actual bike infrastructure:

- Staple or inverted U racks:¹⁵ \$150-\$200
- Bike corral: \$1,200
- Art rack: Variable based on design

To minimize cost, inventorying the current bike lane network could be done by volunteers. Future expansion and prioritization of considerations of the bike network could be incorporated into future transportation planning efforts.

¹⁴ Does not include the cost of installation.

¹⁵ The consultant discourages the use of "wave" racks, as they are more difficult to get a bike in and out of and do not provide two points of contact on the bicycle, which makes them more prone to falling over.

3.6 Communications and Outreach

C1 – Enhance Parking Information Website

Action Statement

Design, create, and upgrade the existing parking website¹⁶ with customer and employee information.

Strategy Description

Communication with the public, including locals, visitors, and employees, will be critical to the success of parking management strategies. Parking locations, time limitations, hours of operation, connections to transportation options, etc., should be marketed and communicated via a continually updated City website. The more information people have when it comes to parking, the better. Piggybacking on **Strategy C2**, the City's parking logo should be incorporated on the website. The City of Nampa does a good job conveying helpful parking information on its website and links to other inter-related topics.

Implementation Timeframe

Immediate

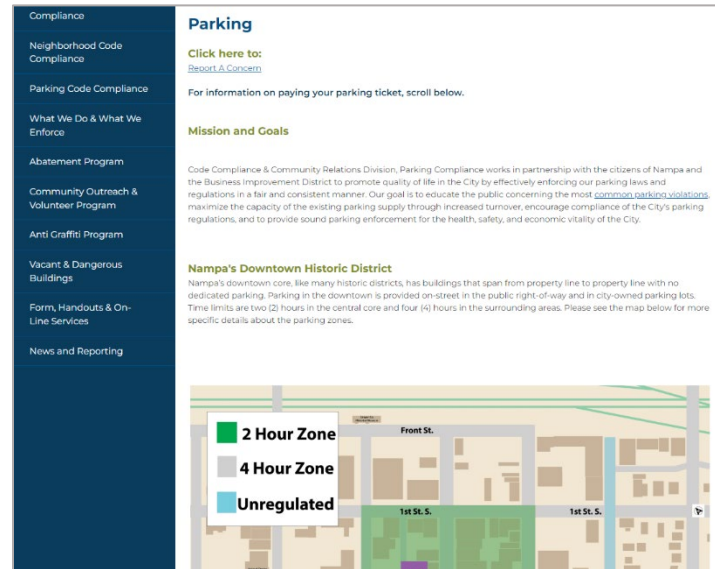
- Working with Parking Stakeholder Work Group (PSWG) and City staff, create and launch the website.

Ongoing

- Keep website information current as changes to the on and off-street parking occur.

Estimated Costs

Costs associated with designing and deploying a coordinated and well-maintained webpage are estimated at \$8,000 – \$15,000. Variations in cost depend on the complexity of the website and how often the site is updated to reflect current parking management. The website should be hosted by the City (or MDC), the Meridian Chamber of Commerce, or a third-party vendor.¹⁷



City of Nampa's Parking Website

¹⁶ <https://www.meridiandowntown.org/downtown-parking>

¹⁷ The consultant would note that having a downtown parking website hosted by the third-party parking vendor is not the most ideal option (only one of three options). The consultant believes any downtown website should incorporate a City logo and identity. The parking system needs to reflect a public function provided to the community by the City. See for instance: [Parking | City of Bend \(bendoregon.gov\)](https://www.bendoregon.gov/Community/Departments/Parking/Parking-Information).

C2 – Expand “Downtown Brand” – Develop a Logo for Downtown Parking

Action Statement

Develop a signage package with a unique logo to integrate the public on and off-street parking system. Install the new signage package consistent with a new logo and recommended time limit format (**Strategy D3**).

Strategy Description

Findings from Topic Paper #3 (Existing Conditions – Supply & Operations) and the parking inventory work, showed inconsistency in the on-street parking signage was an issue. The inconsistency of signage (and signage design) conflicts with the best practice goal of simplicity and understandability as factors supporting a “customer-friendly” access environment.

For this reason, the City will develop a parking logo (or brand) for all public parking by creating a name, symbol, or design that clearly identifies all public parking and can be communicated through signage and marketing. This brand can then be used on-street, off-street, and, ideally, as part of a right-of-way wayfinding system throughout the downtown. It can also be incorporated into marketing and communications efforts, such as maps, websites, etc. (see **Strategy C1**).

This means creating a simple and recognizable “logo” intended to communicate public parking. A simple stylized “P” should be created and extended throughout the public parking system as the parking brand. This is a very easy and cost-effective approach used by other cities. Examples from Albany, New York, Seattle, Washington, and Sacramento, California are shown on the right.¹⁸

Implementation Timeframe

Short-Term

- With the Parking Stakeholder Work Group (PSWG), develop and create a simple but recognizable logo to be ready for incorporation into implementation of new signage developed by the City in **Strategies C1** and **D3**.
- Initiate a survey of all existing parking signage and estimate number of new signs based on a standard configuration per affected block face (see **Strategy D3**).

Estimated Costs

A stylized “P” logo/brand could be developed in-house at a very low cost. A contract with a private graphic designer could involve costs of less than \$7,500 for a simple logo/brand.



ParkAlbany



MORE PARKING. LESS CIRCLING.
DowntownSeattleParking.com



¹⁸ The Seattle logo was also a simple way to connect users into Seattle's electronic parking guidance system and other parking information available online, creating not just the simple "P" but a byline tag as well.

C3 – Rename Public Off-Street Facilities

Action Statement

Rename all publicly owned/controlled lots by address.

Strategy Description

When communicating location to transient users of an area, the name of parking facilities is extremely important. The current City Hall lots do not communicate useful information to users, particularly those who are less than familiar with the Downtown. Industry best practices for naming off-street parking facilities suggest using an address or intersection associated with the main auto ingress point to a facility.

Meridian's current facility identification format is not intuitive or informative. Renaming facilities by address will support the City's broader efforts to make the parking system more intuitive and easier to use.

Here are some examples of good signage: Boulder, Colorado, does a good job integrating a simple stylized "P" logo with identification of facilities by address; San Rafael, California, uses banner signs on light poles to communicate the lot's location (4th & A Streets); finally, Bentonville, Arkansas provides a street address for their parking lots eliminating any confusion on where to find it (see inset photos). These approaches easily and intuitively communicate not just a location but a logo/brand that can integrate into web communications, apps, wayfinding, and other materials.



Bentonville, Arkansas



Boulder, Colorado

Implementation Timeframe

Short-Term

- Coordinate with integrated signage package development (**Strategy C1**).
- Create a budget package for installing new signage at all City-owned/controlled lots.

Mid-Term

- Initiate the installation of new signage.
- Coordinate new messaging into all communications (maps, app, webpage, etc.).

Estimated Costs

Initial costs would involve changing existing signage and integration in marketing and promotional materials, estimated to range between \$12,000 and \$16,000 for 4 facilities.



San Rafael, California

C4 – Introduce *Customer First* Parking Program

Action Statement

Adopt a *Customer First* parking program for Downtown Meridian to emphasize the importance of visitor access in a customer-friendly environment.

Strategy Description

“Customer First” is as much a paradigm based upon set of expectations as it is a marketing and communications program. For Meridian, a “Customer First” program could be a program and delivery system administered through the Meridian Chamber of Commerce, with assistance and support from MDC and the City. The program would be organized around the following:

1. Brand/Logo

The initial step involves creating a “brand” that is simple, recognizable, and can be integrated into the larger downtown messaging such as a drop-in for media, webpage, and/or co-marketing with downtown businesses.

An example is the “Customer First” program in downtown Gresham, Oregon. The Customer First brand has been incorporated into parking signage downtown and is often used in ad drops, media buys, and other collateral materials used during events and promotions. Again, Customer First is not the *Downtown brand* but the *parking brand* that supports larger downtown efforts.

Other programs have used unique parking brands that are elaborate (e.g., Portland’s Smart Park and Vancouver, Washington’s Park ‘n Go). Still others have been just as effective with a more “stylized P,” like Seattle, Washington.

2. Expectations/Collaboration

Given the majority of parking in Downtown Meridian is private lots, it will be imperative that downtown businesses work collaboratively to:

- Identify lots that can be used for multiple purposes through a branded Customer First partnership, which includes parking for employees, use during evenings, weekends, and events.
- Agree that employees parking on-street is not good for downtown or customer access. This will involve a program that requires employees to park in specific areas/lots.
- Agree to a system of “self-enforcement” whereby businesses will communicate with each other when employees are found parking in customer parking stalls.
- Establish a system of “success measures” that can be quantified and tracked over time to inform the Customer First partnership. Success measures include parking occupancies, sales performance, customer volumes, etc.
- Agree to meet routinely to discuss parking issues (and be done in coordination with **Strategy M3, Continue to Convene the Parking Subcommittee**), review performance, and plan outcomes.
- Develop parking management protocols, including placement of mobile parking signs (by day/time/event), data collection, lot cleanliness, and communications/outreach.

3. Operationalizing Expectations



MORE PARKING. LESS CIRCLING.
DowntownSeattleParking.com

Shared use agreements

As outlined earlier (**Strategy D7**), the key to creating a flexible parking supply for the downtown is to gain control over unused parking in private lots. “Opportunity” lots should be selected based on their appropriateness as weekday employee parking and visitor parking (weekdays, weekends, evenings, or during events).

Peer-to-peer outreach to select property owners will be very important and a key to a Customer First Parking program. The City could provide incentives through signage (fixed and mobile), lot upgrades, and contributions to a marketing/communications campaign, but outreach will need to be business-to-business.

Signage management

Once shared use agreements are in place, identifying identified parking locations is recommended to use a combination of fixed signage (i.e., Pine/Main lot) and mobile (A-board) signage. A-boards can be placed at lots appropriate to their designation (weekday, evening, event, etc.) and location. All signs developed should display the brand/logo.

A volunteer management system for placing and removing mobile signs will need to be developed. Mobile signs could be stored at local stores/businesses when they are not scheduled to be in use, with owners agreeing to place and remove them per a specific protocol.

Marketing Communications

A commitment to a brand results in a commitment to supporting that brand through routine and broad-based marketing and communications. Marketing opportunities include (but are not limited to):

- Maps
- Website
- Banner ads or media “drop-ins”
- Co-marketing opportunities with area businesses (e.g., java jackets, cash register tent cards, event sponsorships)
- Bag stuffers (distributed at retail outlets)
- Incentive programs
- Customer rewards
- Print
- Social media



Pine/Main Lot

A Customer First parking program for Meridian is a best practices step that downtown businesses, partnering with the City, should make. A program of this type recognizes the importance of customer service and managing the customer experience. It also recognizes the role of parking within the larger effort to communicate and market the *downtown* – not just its parking. Efforts in other cities demonstrate and rely upon individual businesses' role in leading and delivering parking to customers (and employees). Given its size, Meridian does not have a large public parking system. This places the larger parking solution in the hands of the private sector (at least for the near term). A well-planned and managed partnership between business volunteers and the City can pay dividends; Customer First is a meaningful way to start.

Implementation Timeframe

Short-Term

- Coordinate with integrated signage package development (**Strategy D3**).
- Create a budget package for installing new signage at all City-owned/controlled lots.

Mid-Term

- Initiate the installation of new signage.
- Coordinate new messaging into all communications – maps, app, website, etc. (**Strategy C1**).

Estimated Costs

Initial costs would involve changing existing signage and integration in marketing and promotional materials, estimated to range between \$12,000 and \$16,000 for 4 facilities (assuming non-electric facility identifiers) – see **Strategy C3 – Rename Public Off-Street Lots**.

Carl Walker and Associates (a national parking expert) estimate that a budget of between \$7 and \$15 per stall (per year) is the minimum amount to be allocated to a sustained marketing and communications effort for a parking system. This number assumes that branding and signage have already been developed.

4.0 Summary

Meridian is one of Idaho's top destination cities, nestled just outside Boise and possessing a small-town charm. The city has experienced growth over the last decade as people continue to settle down in Meridian, resulting in some growing pains for the downtown parking system, which calls for more coordinated and strategic management. The strategies recommended in this report offer a toolbox of methods that Meridian can use to manage the parking-related challenges that come with a successful downtown.

This report recommends parking management strategies that directly address these issues through data collection, observation, best practices assessments, research, and stakeholder input. Strategies follow a logical order of implementation, from immediate, near, mid, and long-term, with estimated costs where appropriate. It is hoped that portions of this Plan can be implemented as expediently as possible.

Appendix A: TP #1 – Fundamentals of Parking Management

5.0 Fundamentals of Parking Management

5.1 INTRODUCTION

As part of the larger Destination Downtown Master Plan Update, the City of Meridian is interested in gaining a better understanding of its current parking program. To accomplish this, the Meridian Development Corporation (MDC) and the City are pursuing a series of topic papers focused on specific topics related to parking management.

This Topic Paper is the first of six topic papers and focuses on the fundamentals of parking management. The parking industry views parking management as a toolbox of strategies to address issues in residential, commercial, industrial, mixed use, and institutional areas to assure that desired land use and access goals for those areas are achieved. The intent of this first topic paper is to ‘set the table’ and begin to think about parking and all its management tools more critically. In this way, as Meridian continues to grow, parking will play a strategically supportive, not conflicting, role in its development and long-term growth.

The order of the topic papers will be follows:

Topic Papers – Parking & Transportation Access	
1.	Fundamentals of Parking Management
2.	Policies, Code and Guiding Principles
3.	Parking Organization & Capacity Management
4.	Understanding the Current Parking Environment
5.	The Parking Experience
6.	Demand/New Supply/Technology

This topic paper largely focuses on overarching strategies and parking concepts often utilized in many municipal “best practice” communities. Topic Paper #2 will focus on an in-depth review of local policies and code specifically pertaining to parking within the Meridian study area (on and off-street); balancing the opportunities and potential challenges within regulations with agreed upon Guiding Principles; principles that reflect different users’ values and perceptions of parking. Topic Paper #3 will review how parking management is organized within the City of Meridian and different concepts for managing parking capacity within the City system. Topic Paper #4 aims to understand the parking experience from different user perspectives, noting what is working, not working, and what could be improved upon to get the right person to the right parking stall. Topic Paper #5 will use objective parking data to provide a data-driven review of how users are actually parking in the on and off-street parking systems.¹⁹ Finally, Topic Paper #6 begins to think about Meridian’s future parking needs – added demand, opportunities for new supply, and the role of technology in parking.

¹⁹ RWC will initiate data collection in the Meridian parking study area this Spring 2023.

The intent of each topic paper is to evaluate current parking program management practices, policies, and code, balancing local values with objective data to determine if inefficiencies are present, identify strengths and opportunities, and make recommendations for improvements based on industry best practices and what is practical and feasible for the City of Meridian.

5.2 WHY MANAGE PARKING?

The very phrase parking management can elicit an emotional response from stakeholders. Easy access to a parking space near a favorite store or restaurant for customers, or close to work or home for employees and residents, can define one's perception of an area or experience. When on-street parking is unmanaged all parking is inefficient (on and off-street), literally without rules for use. This can lead to conflicts between users, for example, employees parking on-street in commercial retail areas, or employees and visitors from business areas spilling over into residential streets. This can raise anxieties that set a negative tone for the area.

Understanding the key elements of parking will allow Meridian to:

A. Utilize a Limited Resource Efficiently

On-street parking is by nature limited (finite), and off-street parking is expensive, especially when cities transition from surface to structured parking. When each is treated as a separate operating unit, users are less likely to seek appropriate and effective options to the customary desire to just park on street. As such, when the on-street supply becomes constrained, users begin to perceive the area as full (inaccessible) and either circle blocks looking for a parking stall and/or choose to leave the area entirely. Either way, the “downtown experience” becomes difficult and reflects badly on future decisions related to a visit to downtown. However, when the off-street system is managed as a natural extension of the on-street supply, options to park increase and the ease of finding parking also improves. Similarly, the total supply of parking increases – in the Downtown Meridian study area parking expands from approximately 2,000 *on-street* “options” to a total of 4,000 *combined parking options* (on- and off-street).



B. Use Parking As A Tool to Support and Enhance Economic Activity

Parking stalls do not generate trips in and of themselves. Their purpose is to serve and support a city's desired economic development vision and its efforts to grow interest and activity in an area by attracting new businesses to, and promoting interest and knowledge about downtown. Success in this area will result in increasing demands for parking in the downtown districts, which will lead to conflicts for access between customers and employees. If the City is to be successful in attracting more diverse business uses (that including retail, office and residential) a strategic and innovative parking

management strategy is essential. An initial foundation piece stating desired outcomes for a downtown vision can be found in the 2005 Downtown Meridian Transportation Management Plan (TMP).²⁰ Key strengths for Downtown Meridian development derived from the 2005 TMP are summarized below.

As this project unfolds, parking management will need to be structured (through policy and strategy) to support and enhance this type of economic activity.

Downtown development will emphasize seven key strengths:



Social **retail at street level**



Cultural, continuing education and recreational ("**livability**") facilities



Offices for **businesses that serve Meridian residents** and economic strengths



Highly **livable urban homes**



A Treasure Valley business/Transit Village along the rail corridor



A strong, **highly visible civic presence**



A circulation system for cars, bikes and pedestrians that makes **Downtown a great place to be and to visit**

C. Create Order and Reduce Anxiety

Customers, visitors, employees, and residents appreciate a structure that simplifies decision-making and makes their visit effortless and efficient. When the parking system lacks order, anxiety, and frustration increase, creating a negative perception of the area and affecting a customer's decision as to whether a return trip is worth the trouble or not.

D. Leverage Parking as a Tool to Encourage Transportation Options

Most experts agree that there is a direct relationship between how parking is managed and whether people will access the area using transit, biking, walking, or ridesharing.²¹ Use of alternative mode options promote greater efficiency in the parking supply, particularly if long-term parkers (i.e., those who stay more than 4 hours) switch from driving to another mode. Reduced demand for long-term parking improves turnover rates, which increases the economic value of a parking stall. In addition to

²⁰ Downtown Meridian Transportation Management Plan (2005)

²¹ Richard J. Kuzmyak, "Chapter 18 – Parking Management and Supply," in TCRP Report 95: (Washington, D.C.: Transportation Research Board, 2004), 18-22. Available online at < <http://www.trb.org/Publications/Blurbs/153345.aspx>>

freeing up parking for priority users, commuters who use transportation options derive wellness benefits that lead to healthier and happier employees and reduced health care and retention costs for employers. A 2005, study by David Nieman found that employees who bike, walk, or ride transit to work can increase productivity by 50% and cut sick time in half.²² In short, parking management is not just about efficient parking, but an integrated system of access options to, from, and within downtown.

E. Maximize and/or Manage Parking Turnover

A car parked at an on-street stall all day turns over once. Cars parked in timed stalls (e.g., 2 Hours) are designed to turnover 5 – 8 times (when enforced). As such, the actual vehicle capacity of a stall is in direct relationship to how it is prioritized to be managed. This is not to say that high turnover is always the “priority” for parking, but it does indicate that if turnover is desired, then management of a stall is essential. Understanding and finding consensus on where it is a priority to manage parking for turnover (e.g., on-street) and where long-term parking opportunities are intended (e.g., off-street) is extremely important. Similarly, off-street facilities can provide a balanced mix of both short-term (high turnover) and long-term (low turnover). Understanding the right mix of parking in these facilities will also be important, both for how facilities are managed and for how they are priced.

Why Manage Parking?

- Utilize A Limited Resource Efficiently
- Use Parking As A Tool to Enhance Economic Activity
- Create Order and Reduce Anxiety
- Leverage Parking As A Tool To Encourage Transportation Options
- Maximize/Manage Parking Turnover
- Get the Right People In the Right Parking Space

F. Get The Right People In The Right Parking Space

In a 2008 poll in Everett, Washington, downtown business owners were asked, “Where do you and your employees park on a typical business day?” Respondents believed that 80% of their employees had either parked in off-street facilities or had arrived by alternative modes (i.e., transit, bike, walk, rideshare). When asked “Where do your business peers and their employees park on a typical business day?” the same 80% believed they used on-street parking.²³ The irony of the Everett study was that while everyone agreed that employees parking on-street was a problem, few businesses would associate themselves with contributing to the problem. This also reinforces a best practices message that: *If employees are not walking, customers are. If employees are not parking off-street, then off-street supply is likely underutilized.*

Reaching consensus on a clear understanding of who has priority to a particular parking spot in Downtown Meridian (on- or off-street) is essential. With consensus, parking management strategies make sense, assuring that any changes implemented are intended to support consensus priorities that get the right user to the right space.

²² David Nieman, et al, “Immune Response to a 30-Minute Walk,” in Medicine and Science in Sports and Exercise (Indianapolis: ACSM, 2005), 57-62. See also, Lilah Besser et al, “Walking to Public Transit: Steps to Help Meet Physical Activity Recommendations,” in American Journal of Preventive Medicine, (Philadelphia: Elsevier, 2005), 273-280.

²³ Barney & Worth and Rick Williams Consulting, “City of Everett, Washington CBD Parking Management Study,” December, 2007.

5.3 KEY ELEMENTS OF PARKING MANAGEMENT – BEST PRACTICES

Breaking down the key elements of parking management for a municipality is a good first step in beginning to think about how and why to manage the parking system. The following sections provide an overview of step-by-step elements to explore when digging into a parking management plan, focusing on the following elements:

- **Established Goals.** Reviewing past planning efforts to understand established goals for Downtown Meridian – Transportation, Access, multi-modal, parking, vision. Ensure newly established goals or principles are in line and do not conflict with current efforts all the while establishing new consensus guiding principles.
- **The Role of Zoning.** Zoning can play a profoundly powerful role in helping to define how the parking system is built over time, how it can be used, and the degree to which it can be effectively managed to serve different users.
- **Different Downtown User Groups.** There are many competing demands on a downtown parking supply from a variety of user groups. Identifying who they are, and their patterns of typical parking behavior is a necessary step in managing how they access the system.
- **Prioritization of Users.** Determine a hierarchy of users by understanding their differing needs – residents, employees, and visitors. Understanding the opportunities as well as the trade-offs when managing a parking program.
- **Right Sized Parking.** Is a practice being employed by numerous municipalities to refresh outdated parking codes to more accurately reflect local parking demands.
- **Measuring Performance and Demand.** Good decision making depends on good data. Routinely measuring how the parking system is working is a critical component of parking management. Local data is the best data.
- **Continued Public Involvement.** Continued community input through an advisory committee is essential to create community “buy in,” inform decision making, and help shepherd the overall implementation process.
- **The City’s Role in Parking.** Defining the City’s role, both in terms of scale and scope, in parking management is important so that boundaries are clear and transparent.
- **Enforcement.** Reasonable and efficient enforcement of a parking system is the key foundational element of parking management.

Managing parking within the framework of these best practices elements supports efficiencies within the parking system, ensures parking is available for priority users and informs strategic decision making.

A. Established Goals

With a baseline understanding of best practices in parking, there are several first steps that, if managed properly, can create a cohesive and successful parking system. However, the task of understanding the parking system can be daunting when it is unclear where or how to begin, or when there is not a clear understanding and sense of how the access system is intended to support change in a corridor. In short, parking systems are unique to each community, complex with different moving parts, and constantly changing as demand for access grows as the community grows.

The City, within its current Transportation Management Plan (TMP), has established a series of agreed upon goals which encourage a vibrant, livable Downtown Meridian allowing for a variety of users to flourish.

Downtown Meridian will be the true center and heart of a close-knit community. Primary markets will be community residents, especially families, and the customers and clients already drawn to Meridian's other primary economic strengths: medical, retail, education, industrial and professional services facilities.

Specifically for parking and access, the TMP recognizes the challenging traffic environment, yet notes “Circulation and parking systems will encourage people to come to Downtown, while facilitating through traffic around Downtown.”

One of the seven identified key strengths of Meridian was to establish a ‘*circulation system for cars, bikes and pedestrians that makes Downtown a great place to be and to visit.*’ The formal establishment of such goals provides a baseline from which parking management strategies are “calibrated” and tailored to the unique characteristics and desired outcomes of the community. These goals for access (which include parking) inform the selection and implementation of parking management tools. They also provide a narrative foundation against which the community can assess the reasoning and timing of decisions to implement or alter strategies for managing parking.

More specifically, the role of parking for the City of Meridian will be guided by a series of Guiding Principles. Ideally, these “statements of priorities” will be developed through a consensus process with this project’s Parking Committee, a diverse group of individuals from Meridian representing the different user needs (e.g., employees, employers, residents, City staff, and others affected by parking in the Downtown). These agreed upon priorities will establish a foundation of local values from which parking decision making will then made.

B. The Role of Zoning

As noted above, there are many different users accessing both the on and off-street parking in downtowns. To make sense of how to minimize conflicts and simplify a parking management plan, the most commonly held basis for determining priority use of parking is zoning. For instance, if base zoning in an area is residential, then the “priority” for access to any on-street parking in the zoned area would be residents and their guests. If the area is zoned commercial or mixed use, with requirements for active ground floor uses, then the “priority” would be for short-term visitor access to ground floor uses. If an area were zoned industrial, the priority could be for long-term employee parking associated with industrial businesses. Of course, there are variations to this, but the point remains that zoning is a very simple platform from which to begin the process of prioritizing parking. To this end, management strategies are directly tied to the street level land use priority (e.g., residential/business permit programs for neighborhoods/industrial areas and timed/priced parking in retail/commercial areas where turnover best serves the adjacent land uses).

C. Different Downtown User Groups

Downtowns are mixed-use commercial districts, comprised of ground level retail/active use storefronts, with upper story office and residential tenants. This is supported with other institutional uses that include government offices and entertainment venues (e.g., theaters, museums). To this end, the on-street system within a downtown parking management zone should be time limited to a calibrated base standard (whether free or paid parking). The intent here is to ensure that any downtown block face that abuts a commercial storefront is structured to preserve and prioritize access for customers and visitors. Locating unregulated and unrestricted parking within downtown commercial districts encourages employees and/or downtown residents to park all day on-street and can conflict with other parking strategies to move those with long-term stay needs into off-street facilities or toward the use of alternative modes of transportation that do not require a parking space, such as transit, biking, or walking.

Customers

On-street

In the parking industry, a customer is defined as anyone using businesses downtown by a transient trip – this includes shopping, eating, attending entertainment events, recreating, and visiting downtown amenities. As such, a customer can be a shopper, tourist, or local resident. Customers are the life blood of most commercial/retail downtowns. In a study of the economic value of on-street parking spaces in downtown Vancouver, WA, it was determined that a single 2 hour on-street parking space generated approximately \$54,000 annually in customer sales (see graphic at right).²⁴ If any one group should have prioritized access to the most convenient and easily accessible public on-street stalls, it should be the customer. The overwhelming majority of customer stays are considered short-term, typically 3 hours or less. This is true in most cities across the United States.



Source: Vancouver WA

While customers are prioritized, it is equally important to keep them circulating through the downtown so more of them can be accommodated. This is accomplished through a combination of time-restrictions and enforcement (more mature systems, in the case of Vancouver, also include priced parking). As discussed above, optimal and efficient time stays for customers are established through data collection that monitors duration of stay. Occupancy data allows for demand-based management of rates. The overall goal of circulation and turnover is supported with parking enforcement structured to ensure reasonable levels of compliance. If the system is not optimized, both access and economic benefit for the downtown are not fully realized.

Off-street

While not as standardized as the municipal on-street system, *publicly owned* off-street parking should also maintain a priority focus on customer access. If an on-street supply becomes constrained (even after the use of time restrictions, pricing, and enforcement), the municipal off-street system serves

²⁴ Vancouver Downtown Association Survey of Retail Businesses (2014).

customers as spillover for the on-street system and provides a potential longer-term stay option for customers needing more time than what is allowed in the higher turnover on-street supply. In general, best practices would encourage cities to balance their off-street systems to serve a combination of short and long-term users. However, as constraints in the downtown supply grow over time, the focus is to manage the municipal off-street system to transition long-term users (particularly employees) to private parking supplies and alternative transportation modes.

Employees

On-street

Employees are the first to arrive downtown and if parking is unregulated, they will typically take the most convenient parking spaces near their place of work. As stated above, the highest priority for on-street parking stalls is the customer, suggesting that all on-street parking within a parking management zone be formatted to a base standard. In order to maintain access for customers, the on-street system downtown should not be made available to employee or long-term parking.

As a note, there are cities, including Milwaukie and Salem, Oregon and Vancouver, Washington, that do allow limited use of the downtown on-street system by employees and/or downtown residents using permits. However, these cities are the exception rather than the rule. The key to these unique programs is that on-street permits are (a) provided on an interim basis, (b) allow parking in commercial areas of their downtowns with a demonstrated level of occupancy that is well below a targeted occupancy standard like the 85% Rule (and never as spillover into adjacent residential streets), and (c), designated on-street block faces allow permitted vehicles are signed (for example) “2 Hour Parking or by Permit.”

For example, Vancouver, WA through its interim on-street permit program allows those with business or residential addresses in the downtown parking management district to purchase permits. Interestingly, Vancouver titles its on-street permit program an “interim general access permit.” In other words, Vancouver does not prioritize employees or residents in its program; rather it is first-come first-served, allocated to those with verifiable downtown addresses and routinely adjusted based on an optimum occupancy standard. Again, these permits are limited in the number allowed and are interim, with no guarantee of renewal. In short, if visitor demand goes up, the number of on-street permits allowed will be reduced by higher rates charged and/or reducing the number of permits allocated.

Off-Street

The industry best practice regarding employee parking in municipal supplies is to first encourage employees to park in private off-street surface lots or garages in the downtown²⁵, allowing the city to maintain a visitor parking priority within its own on- and off-street supplies. Ideally though, any city-managed employee parking program using public supply should also be integrated into programs encouraging the use of alternative transportation modes. This can be accomplished through market-based pricing and/or actively managing the allocation of long-term parking permits allowed in the public supply to always ensure customer access availability.

²⁵ The City of Portland prohibits employee permit sales in its core area Smart Park garages. In Smart Park garages in the periphery areas of downtown, Portland maintains a balanced mix of customer and employee users, though its permit pricing is set at a rate above the local market average for monthly parking. As such, Portland’s goal in managing its off-street supply is to always prioritize customer access and mitigate, through pricing and monitoring of use, conflicts between employees and customers needing a parking stall.

Residents

On-street

In any parking management district *zoned primarily for commercial or employment*, residents, like employees, should be a low priority user within an *on-street* parking supply. Conversely, *in areas zoned residential*, the priority for on-street parking should be the resident and their guests (thereby controlling for potential employee spillover from adjacent commercial areas). As with commercial areas, permit programs targeted only for residents and their guests can be implemented to control overspill issues that may affect residential/guest access, safety, and congestion on zoned residential streets. There are hundreds of such programs around the United States. Such programs do come with implementation requirements that can include data verification of occupancy constraints, limits on the number of permits per household, guest permit allocations, local petitions to establish a residential permit boundary, and (in most cases) an annual fee to residents for administration of residential permit programs. Again, as with parking permits in commercial areas, the purpose of such programs is to ensure reasonable and convenient access for priority users, in this case preserving such access for residents and their guests in residential areas.



Off-street

Cities encourage residential “mixed-use” development in commercial zones to revitalize urban areas and to attract ground level active uses (e.g., retail, restaurants, entertainment). Most cities guide newly developing residential parking within commercial zones through minimum parking requirements. The intent in these cities is to ensure that a specific “minimum” level of parking is provided within new residential developments; precluding any assumed reliance by the development for on-street parking intended to serve customers and visitors of a commercial district.

For older and historic buildings without parking, we could find no examples of specific municipal programs (outside of the Vancouver example) that use public supply to serve residential parking demand. For the most part, cities support the provision of residential parking through code for new development or third-party offsite agreements between older and historic residential buildings and private owners of parking.

Hood River, OR is considering eliminating parking requirements for older and historic buildings that convert upper stories from commercial to residential use. This is being evaluated as an option to support the City’s goal for preserving older and historic buildings and encouraging residential growth downtown. Nonetheless, the elimination of the parking requirement comes with a condition of approval acknowledgment that use of the municipal on-street system by residents for long-term parking during established hours of enforcement is not allowed. This provision is intended to encourage building owners to seek shared use parking partnerships with other downtown private sector partners, stimulate increases in alternative mode options, and promote low car/no-car living environment downtown.

D. Prioritization Of Users

There should be high clarity and agreement in identifying priority users of the parking system, particularly for publicly controlled on-street resources. With a clear understanding of (1) who has

priority to a particular parking spot, and (2) whose role it is to provide parking (public and/or private sector) policies and strategies can be developed that “get the right user to the right space.” One of the most significant challenges of managing a municipal parking system is trying to accommodate the needs of competing user groups. The parking system (particularly the on-street system) simply cannot serve all users’ needs equally, particularly when competing demands for a space occur during similar peak times. Parking is a scarce and costly resource that needs to be prioritized for the highest and best use.

The on-street parking supply is finite and is most preferred by users. If the parking priority users are prevented from using the supply, then the parking resource is inefficient, contributes to conflicts between users and is not supportive of off-street parking or alternative mode options. As such, it is important to reiterate that the role of on-street parking should be to ensure access to defined priority users. If on-street parking is intended for visitor access, it is likely that it be time limited. If the priority is for employees or residents, then systems need to be developed to ensure that employees and residents are “identified” (e.g., permits) so that other long-term parkers (i.e., employees from out of district, park and ride users) are not monopolizing supply. This becomes more apparent and critical in areas that have high constraints for parking access.

Knowing there is a limited supply of public parking, city parking managers must make decisions based on established user priorities. For lower priority user groups, city parking managers must consider how and in what form their parking needs should or should not be accommodated in the public supply and/or the distinct role the City plays in providing parking versus that of the private sector.

E. Right-Sized Parking

Historically, parking policy and code development in most cities focused extensively on the uniform provision of parking in order to avoid conflicts between landowners or to remain consistent with “peer cities.” In *The High Cost of Free Parking*, Donald Shoup notes that communities relied heavily on general guidance documents such as the Parking Generation Manual produced by the Institute of Transportation Engineers (ITE). This manual observes peak parking occupancies at different sites to produce a parking generation rate for that type of land use. Unfortunately, ITE parking generation rates are based on limited samples and, most often, from suburban locations where driving rates and peak hour parking are much higher than in mixed-use business districts (like emerging downtowns). Further exacerbating the problem, planners have often required parking capacity be sized to accommodate the 30th busiest hour for a particular land use. This amounts to planning for the highest demand that might theoretically be experienced—akin to building to accommodate the Christmas rush.

This approach typically assumes that all trips will be made by motor vehicle and that demand is consistent throughout the year. This overstates parking demand in mixed-use developments and gives little consideration to the urban context or a site’s accessibility by other modes or where users will park once for trips to multiple destinations. Studies routinely find that where minimum parking requirements are in place, they often require more parking than actual demand warrants. This is costly, wastes land, and the impacts are long-term.



For example, King County Metro's 2015 Right Size Parking Report²⁶ found that minimum parking requirements in over 20 cities in King County (Seattle area) resulted in overbuilt parking ranging from 20% - 35%.

Even more importantly, parking standards in many cities relate parking requirements specifically to individual land uses, as opposed to considering all of the land uses in a site or an area as a whole. However, examining the different land uses collectively allows managers to adjust parking rules to account for such factors as:

- Different peak hours of use by type of business within a mixed-use project or parking district.
- Fluctuations in the number of employees absent from work due to new hybrid work schedules, illness, vacations, and business travel.
- The role of on-street parking as a supply for visitor demand.
- Use of local data to identify peak hours versus national standards.
- The percentage of trips using transportation modes other than a motor vehicle.

When considered from an economic perspective, “right-sized” parking can substantially reduce development costs, saving hundreds of thousands to millions of dollars. Parking policies and codes that are “one-size-fits-all” may appear simple, but they can have adverse consequences. Over-building can cause several problems: it can lead to inefficient land uses, where parking can dominate the environment and inhibit alternative transportation. It can increase development costs, thereby discouraging new businesses from building or locating in these areas. And it can undercut efforts to revitalize Main Streets and create affordable, livable, and economically viable communities.

Keep in mind that a parking stall does not generate a single trip, it is the destination that attracts the trip. Some competition for parking is a signal of a healthy economy. If you don't have a parking problem, you have a problem with your downtown! The focus should be on cultivating great destinations and creating a parking plan that supports that vision.

F. Measuring Performance and Demand

Performance monitoring is an important part of successful parking management. Many cities implement parking programs without setting aside the resources to monitor the outcome of the changes. This makes any evaluation of the results of the program difficult. A good monitoring program should follow the following steps:

- Develop a monitoring program prior to implementing any changes in parking policies.
- Collect solid baseline data of “before” conditions prior to implementing changes.
 - ✓ If possible, design the parking program and monitoring plan in a way that will allow you to isolate the impacts of specific policy changes.
- Practice regular (annual, bi-annual) parking data collection and analysis; quantifying metrics for occupancy and utilization in both the on and off-street supplies.

²⁶ <https://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/rsp-final-report-8-2015.pdf>

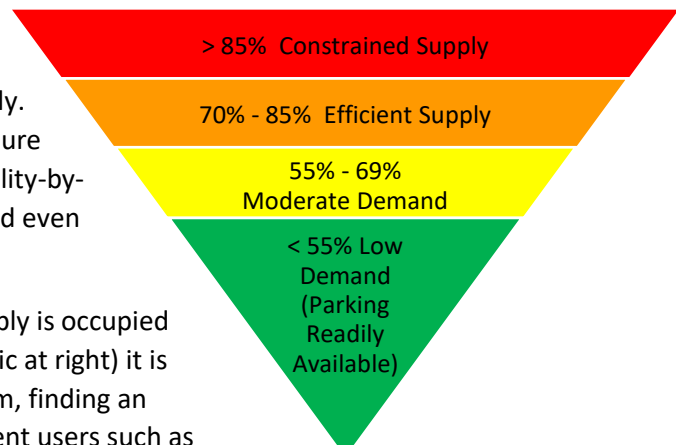
- Analyze data within the context of changes in population, employment, and economic activity in a study area.
- ✓ Use the monitoring plan and data to help revise and update your parking policies as needed.

Good data leads to good decision-making. This is especially true when data is tied back to established access goals and accommodating priority users.

85% Occupancy Standard

In the parking industry, the 85% Occupancy Standard is the most common approach taken in assessing the performance of a parking supply. The 85% Occupancy Standard is a flexible measure for evaluating parking supply, whether as a facility-by-facility measure, at a district level, sub-area, and even block-face by block face.²⁷

When 85% or more of an available parking supply is occupied for sustained periods of time (red on the graphic at right) it is considered constrained. In a constrained system, finding an available spot is difficult, especially for infrequent users such as customers and visitors. This can cause frustration and negatively affect perceptions of an area or district. Continued constraint can make it difficult to absorb and attract new growth, or to manage fluctuations in demand—for example, seasonal or event-based spikes.



Most parking managers strive to maintain a supply in the 70% to 85% occupancy range (orange), deemed as an “efficient” supply of parking. An efficient supply of parking shows active use but minimizes constraints that would create difficulty for users. Efficient use supports vital ground-level businesses and business growth, is attractive to new users, and can respond to routine fluctuations - resulting in a supply that is robust and accessible.

Occupancy rates of 69% or less (yellow and green) indicate moderate to low demand for parking, leaving greater percentages of supply empty with potential to absorb parking demand. In other words, this indicates a potential opportunity to maximize and/or share with other uses.

Within this project, data collection will occur in Spring 2023. Parking utilization and occupancy will be measured on two days (one weekday and one weekend day) to establish a quantifiable understanding of parking behavior trends and metrics associated with the different days. Both targeted dates will strive to be representative of a ‘typical’ weekday and ‘typical’ weekend day. Data will be collected hourly over an agreed upon time period (e.g., 10 consecutive hours). The data will be analyzed and displayed (in the form of graphs, charts and/or heat maps) using the 85% Occupancy Standard described above. This baseline data will be an objective counterpoint from which to discuss strategy development with the context of established guiding principles. Guiding principles with inform priorities, data will provide clear

²⁷ Readers may be aware of parking analyses presented by Donald Shoup in his book *The High Cost of Free Parking*. Dr. Shoup is strongly in favor of implementing pricing systems at the block face level.

measures of system performance, and appropriate strategies will be developed for implementation to ensure priorities are consistently managed.

G. Continue Public Involvement in Parking Management

Integral to the continued management of parking for the City of Meridian is the continued role of the Parking Subcommittee in assisting in the implementation of the parking management plan recommendations and strategies. Active participation by those affected by the forthcoming strategies is best accomplished through an established advisory committee that reviews the performance of the public parking system, serves as a sounding board for issues, periodically reviews the recommendations presented in the plan and acts as a liaison to the broader stakeholder community as changes are implemented. The City should continue with the Parking Subcommittee process after the Parking Management Plan is completed, to assist in its implementation and provide on-going feedback.

An example of the Subcommittee's continued role could be to assist City staff in establishing key parking and access management performance measures that would be routinely quantified and tracked and published in a dashboard format in an Annual Downtown Parking Management Report. Tracking and communicating system performance, illustrating change between measured operating years, and adjusting strategies in areas where performance is not met can be a catalyzing element of any city's parking management program.

H. The City's Role in Parking

The complexity and strategic format of any parking management plan is shaped by the role—large or small—that the City itself plays in its implementation. To achieve the City's goals as outlined in the TMP, the status quo may need to be changed to address the evolving needs of a growing Meridian. To successfully address these challenges, the City may have to play a larger role and take on greater responsibilities than it has historically as Meridian continues to grow within the Downtown and beyond. This can include policy guidance, adjustments to regulatory standards, active supply management, development of new parking supplies or alternative mode options, and funding. Clear guidance from the City on its role and responsibility in these areas will be necessary to enable appropriate strategy choices going forward. Also, a clear statement of the City's role sets expectations for the private sector that establish a "level playing field" for assembling a development project.

I. Enforcement

An enforcement program is a vital piece of your parking management plan, ensuring that the system is being used as intended. Without basic compliance with time stays or following the rules of permit use, the system breaks down and conflicts with priority users increases.

Note: the level of enforcement is less critical than just conducting and assuring parking compliance.

Some cities may find it financially difficult to employ full-time parking enforcement staff. Sixteen hours of enforcement a week is better than none. Cities transitioning from a system with no monitoring can assign an existing staff position the responsibilities of part-time enforcement. Where third-party enforcement can be engaged, cities contract for a specific base level of enforcement hours per week, rather than assuming that to enforce, there must

be a constant presence. To be most effective, the enforcement hours should be randomized so as not to be predictable.

Also, enforcement officers can be viewed as community liaisons, and less punitive, serving the downtown area for a combination of compliance, safety, and public information. For example, officers can be supplied with Main Street information (maps, restaurant guides, key destinations) so that visitors are greeted with friendly information too, promoting a positive visitor experience. The transition of traditional enforcement officers to community liaisons and/or “ambassadors” is taking place in numerous cities across the United States.



Source: Long Beach, California

Finally, enforcement should not be viewed as a revenue stream, rather a program that is revenue neutral and self-supporting financially, balancing fees/citations to create reasonable compliance and cover labor and operating costs. When enforcement is viewed as a revenue center it can create an aggressive enforcement environment that deters visitors. Preferably, enforcement revenues are not deposited into a city’s general fund, but into a downtown enterprise fund that supports both the parking program itself and other investments in the area where fees are collected – for example, downtown beautification projects. Such reinvestments make parking fees more palatable overall.

5.4 ADDITIONAL PARKING MANAGEMENT ELEMENTS

A. Parking Technology

For cities considering installing or upgrading pay-to park systems, the industry is fast developing new technologies, including smart meters, pay-by-cell programs, wireless stall sensors, and parking apps. These can be expensive, however, and their successful use is contingent upon a willingness and ability to support them and to educate the parking public. Before jumping on the “latest and greatest” technology bandwagon, consider the upfront and long-term costs.

New parking payment technologies may be explored through a demonstration process that allows for an objective cost-benefit analysis, a comparison of vendors and equipment types, and an evaluation of customer acceptance and impact on city operations. Call the parking managers at peer communities to find out what they’re using and what their experience has been. Many Northwest cities use smart technologies, so their use in the unique climate and geography of this region can be evaluated and discussed using real-world input. Above all, make sure that you cover the basics of parking management first, and that the technology you use helps you achieve your goals.

A more detailed review of parking technology will be provided in Topic Paper #6 – Demand, New Supply & Technology.

B. Transportation Demand Management

Transportation Demand Management (TDM) is a critically important, and often overlooked, parking management strategy. When coupled with other access solutions, it can have an immediate and lasting impact on the on-street parking system, encourage employees to use transportation options to get to

work and free up parking for customers and visitors. When employees use on-street stalls, the stalls become nothing more than vehicle storage and experience no turnover during the workday. Allowing employees to park on-street is a policy decision, but cities should understand that it will affect the economic health of the downtown.

TDM aims to maximize the efficiency of the urban transportation system by discouraging unnecessary private vehicle use and promoting more efficient, healthy, and sustainable access solutions. TDM strategies are often more cost-effective than capital investments in new roads or parking lots.

Examples of TDM strategies within a Parking Management Plan include:

- Priced parking
- Transit pass programs
- Free emergency rides home
- Commute option planning
- Preferential rideshare parking
- Employee vanpools (sometimes with employer subsidies)
- Bicycle parking (short- and long-term)
- Financial incentives for transit, biking, walking, or carpooling
- Carsharing and bikesharing programs

Transportation Management Associations (TMAs) can also be an effective way to deliver TDM programs. TMAs are non-profit, member-based organizations that work in a specific neighborhood or business district to address common transportation concerns, including parking, traffic congestion, and active transportation. Through negotiated public-private partnerships, TMAs can leverage public parking meter revenue along with other sources of funding to provide a range of transportation services more cost-effectively than individual businesses could. TDM programs may also be delivered through the municipality or in-house by large employers decrease drive-alone commuting by employees.

5.5 SUMMARY

Parking Management is complex. A variety of elements play equally important roles in constructing a holistic plan that is thoughtful and reflective of a community's values. Downtown Meridian is no exception, with a bustling and historic downtown and increasing new development, now is critical time to begin thinking about how to best manage the parking in Meridian now and into the future.

This paper is intended to serve as a foundation of best practice concepts from which the Parking Subcommittee can begin to form priorities and values which will be memorialized in the form of 'Guiding Principles.' These values will then be balanced with a data-driven approach to understanding how the on and off-street parking is functioning in Downtown Meridian. Through this process parking perceptions will be challenged, existing conditions will be evaluated, priority users will be identified, and a reckoning of the customer experience will be used to derive practical and effective strategies to be incorporated into the downtown parking management plan.

As Meridian continues to grow and develop, having a sound Parking Management Plan will support, not hamper, a vibrant Downtown for years to come.

Appendix B: TP #2 – Parking Policy & Code Review

6.0 Parking Policy and Code Review

6.1 INTRODUCTION

As part of the larger Destination Downtown Master Plan Update, the City of Meridian is interested in better understanding its current parking program. To accomplish this, the Meridian Development Corporation (MDC) and the City are pursuing a series of topic papers focused on specific topics related to parking management.

This Topic Paper is the second of six topic papers and focuses on a review of City policy documents and code as it pertains to how the City envisions the role of parking in its land use, growth, and transportation access future; particularly how those policies translate into code support for achieving policy objectives. The table below indicates the Topic Paper process for this project.

Topic Papers – Parking & Transportation Access
1. Fundamentals of Parking Management
2. Policies, Code, and Guiding Principles
3. Parking Organization & Capacity Management
4. Understanding the Current Parking Environment
5. The Parking Experience
6. Demand/New Supply/Technology

The primary intent of the report is to provide an in-depth review of policies and codes specifically about on- and off-street parking within the Meridian parking study area (see **Figure A**). Ideally, current policy and code would provide the following to guide planning and decision-making.

- Policy should reflect the City’s overall intent and purpose for parking management in the downtown, and how parking integrates with the City’s larger policy vision for land use growth, urban form/development, and transportation access that includes all travel mode options.
- The Parking Code should serve to activate the policy vision in a manner that supports desired outcomes and best practices for parking.

Several primary sources were reviewed in the creation of this topic paper:

- ❖ *2010 Destination: Downtown Plan, the*
- ❖ *2019 City of Meridian Comprehensive Plan,*
- ❖ *City of Meridian 2021 – 2025 Strategic Plan, and the*
- ❖ *Downtown Meridian Transportation Plan (DMTMP). We also reviewed the*
- ❖ *City Municipal Code, primarily*
 - *Title 7, Chapter 2 – Parking Regulations and*
 - *Title 11, Chapter 2, Article C – Off-street Parking and Loading Requirements.*

6.2 EXECUTIVE SUMMARY

One of the most significant challenges of managing a municipal parking system is trying to accommodate the needs of competing user groups. The parking system simply cannot serve all users' needs equally, particularly when the demand for a space occurs during similar peak times. Parking is a scarce and costly resource that needs to be prioritized for the highest and best use.

With a clear understanding of who has priority to a parking spot, policies can be developed that “get the right user to the right space.” This outcome should be reflected both in a city’s parking policy framework and, subsequently, in its code regulations which are established to ensure parking priorities are delivered.

Knowing there is a limited supply of parking, city parking managers must make decisions regarding who should get priority access to specific stalls. Further, when one group is not prioritized, city parking managers must consider how and in what form their parking needs should or should not be accommodated. Industry best practices emphasize that there should be a high level of clarity and agreement in identifying priority users of the parking system, particularly for publicly controlled on- and off-street resources. With a clear understanding of who has priority to a parking spot, policies are framed to “get the right user to the right space.” This outcome should be reflected both in a city’s parking policy framework and, subsequently, in code regulations established to ensure parking priorities are delivered.

This paper is intended to serve as a foundation from which the Parking Subcommittee can begin to form opportunities to connect desired visions for how Meridian will look and function in the future (policies) coupled with the regulatory system which catalyzes that vision through development (code). **Sections 1.3 through 1.6** provide a detailed outline of the evaluation of the current Parking Policy and Municipal Code. Summary findings from the broader review include:

Assessment of City Policy Documents

- The City's Comprehensive Plan (2019) and the Downtown Meridian Transportation Management Plan (2010) do not point to any formally established parking policies in the Downtown Parking Study Area.
- The Comprehensive Plan (2019) does not provide a clear sense of the specific role parking infrastructure and/or its management plays in the overall vision of density and/or the definition of “multi-modal,” which includes transit, biking, walking, and parking in the holistic system of access to an area or district.
- The Downtown Meridian Transportation Management Plan (2010), as with the Comprehensive Plan, does not provide guidance on how parking should be managed in ways that meaningfully support the land use, development, and urban form visions expressed in other City policy documents, particularly the visions for efficient, mixed-use development and “connected” multi-modal transportation access systems.

Nonetheless, these documents do provide policy and goals for establishing efficient transportation networks, more compact development, and redevelopment (through better use of vacant land), but nothing specific to parking or parking management. Moving forward, working to better integrate formal

policies and goals for parking will enhance the City's broader transportation, land use planning, development, and growth policies.

Assessment of Other City Documents

- The Destination: Downtown Plan provides an excellent resource and foundation for envisioning parking not as simply a place to store a vehicle, but as a component of (a) a larger system of access, (b) a key factor that drives urban form, and (c) a resource that needs to be strategically developed and managed.
- What might be missing in the Destination: Downtown Plan is more detail as to those who are deemed priority users of specific supplies of parking, i.e., on-street, off-street, downtown, and in adjacent residential areas.
- The 2021-2025 Strategic Plan currently lacks clarity on parking and how, within a multi-modal system, parking would be regulated, managed, and built to achieve desired outcomes guided through policy and code. However, the Plan's intended outcomes for better transportation efficiency, connectedness, and multi-modal access are supportive of goals and standards for more efficient building and strategically managing parking, inside and outside of the Downtown.

Assessment of the Meridian Municipal Code

As in other documents reviewed in this report, the code does not give clear input into policy as to the purpose for parking. The goal here is to ensure that the parking code reflects and supports clear policy outcomes for parking in Meridian.

- Title 7, Chapter 2 - Several recommendations for revisions are discussed. These considerations are mostly definitional, clarifying parking in the downtown area and setting the City up to better anticipate future parking activity and management of the downtown supply.
- Title 11, Chapter 3 - The consultant recommends a broader evaluation of the existing parking development code with the intent to right-size requirements for residential uses and ensure that requirements for non-residential parking allow for blending demand in mixed-use developments. These requirements are one of the most significant factors today shaping how cities are "calibrating" codes to directly link to goals and visions for urban form, connectivity, efficiency, and livability.

6.3 ASSESSMENT OF CITY POLICY DOCUMENTS

Each of the specific documents reviewed was evaluated for policies, goals, and other guidance that would be highly supportive of more strategic parking management and/or the role of parking in contributing to the larger vision for future land use, development, urban form, and connectivity, *particularly as this would be applied to the downtown*. Overviews and findings are described below.

A. City of Meridian Comprehensive Plan (2019)

Overview

Meridian's Comprehensive Plan is a long-term policy document for the community with guiding visions and policies relating to new development, redevelopment, city programs, and services. The plan serves

as a guide for future community leaders in navigating the public planning process and making land use decisions that support a vital city.

The community's Comprehensive Plan vision for Meridian is summarized in vision statements with five over-arching themes. Each theme area is provided with unique chapters in the Plan, with a corresponding table of policy direction (including goals, objectives, and action items) specific to that theme. RWC's review focused on identifying policy guidance that would specifically address parking in the downtown area in the context of the key Plan themes. Themes include:

The goal of the 2019 Comprehensive Plan is to create an effective vision and source document that the general public, developers, and decision makers can reference and utilize to ensure Meridian is a premier place to live, work, and raise a family.

- **Premier Community** - A vibrant, diverse, clean, safe, and secure community in which to live, work, and thrive.
- **Evolving Community** - A community thoughtfully adapting to changes.
- **Livable Community** - A community of family-friendly, healthy, and engaging places.
- **Vibrant Community** - A community strengthened by historic character and vibrant activity centers.
- **Connected Community** - A community of safe and efficient transportation.

Findings

Within the Comprehensive Plan, there are only a total of ten references to parking and just three references to parking related to specific policies, goals, objectives, or action Statements. The three referenced areas serve desired outcomes for Premier, Livable, and Vibrant Communities (see **Table 1**). Surprisingly, there are no policy references or guidance for parking related to the Connected Community theme.

Table 1 – Comprehensive Plan Guidance – Parking Specific

Policy ID	Guiding Statement	Theme	Section	Goal, Objective, or Action
2.09.01A	Pursue public-private partnerships to develop parking facilities.	Premier Community	Economic Excellence	Action
4.04.03B	Furnish pathway systems with trailhead improvements that include interpretive and directional signage systems, benches, drinking fountains, restrooms, parking and staging areas , and other services for all ages and abilities.	Livable Community	Parks and Pathways	Action
5.01.02D	Require appropriate building design, and landscaping elements to buffer, screen, beautify, and integrate commercial, multifamily, and parking lots into existing neighborhoods.	Vibrant Community	Character, Design, and Identity	Action

The Comprehensive Plan provides strong guidance for compact and efficient development Downtown. This is strongly expressed in the Premier Community theme for Economic Excellence, which sets an objective that “encourage the development of high quality, dense residential and mixed-use areas near in and around Downtown,” and “support redevelopment and infill opportunities Downtown.” Similarly, and directly related to the downtown, the Connected Community theme calls for a downtown transportation network that better integrates a multimodal transportation system to support the Comprehensive Plan vision for more efficient development.

Summary

There is not a clear sense within the Comprehensive Plan of the specific role parking infrastructure and/or its management (in the downtown or elsewhere) plays in the overall vision of density and/or the definition of “multi-modal,” which includes transit, biking, walking, and parking in the holistic system of access to an area or district.

B. Downtown Meridian Transportation Management Plan (DMTMP)

Overview

The focus of the Downtown Meridian Transportation Management Plan (TMP) is “toward Connection... between customers and businesses, residents, and the place of Meridian. Specifically for parking and access, the TMP recognizes the challenging traffic environment, noting that circulation and parking systems should encourage people to come to Downtown while, at the same time, contributing to building densities that foster connection rather than sprawl.

The focus of the DMTMP strategy is “toward Connection, between customers and businesses, residents, and the place of Meridian. Circulation and parking systems will encourage people to come “to” Downtown, while facilitating “through” traffic around Downtown. Building densities and building heights will foster connection rather than sprawl.”

The TMP lists seven key strengths for the development of downtown, one of which is specifically related to parking, calling for a circulation system for cars, bikes, and pedestrians that makes Downtown a great place to be and to visit.

Findings

Within the Downtown Meridian Transportation Management Plan (TMP), there are fifteen references for parking. Five of the references are from the written public comments and are not associated with the formal expression of “intent” or “purpose” found within the plan itself. Within the remaining references and statements related to parking, the intent focuses more on circulation and the need to “accommodate” parking, particularly as regards commercial deliveries, the location of parking, and convenience. From a strategic parking vision perspective, there is nothing, for instance, that would provide guidance for:

- Maximizing existing parking supplies to support more compact, dense development (e.g., shared parking).

- Reducing (“right-sizing”) parking built (through code requirements) to facilitate and integrate with other alternative mode options and capacities.
- Defining the priorities of use for parking: on-street and off-street in commercial, residential, and mixed-use downtown formats.

Summary

As with the Comprehensive Plan, there is little guidance in the TMP as to how parking should be managed in ways that meaningfully support the land use, development, and urban form visions expressed in other City policy documents, particularly the visions for efficient, mixed-use development and “connected” multi-modal transportation access systems.

6.4 OTHER CITY DOCUMENTS REVIEWED

A. Destination: Downtown Plan (2010)

Overview

The Destination: Downtown Plan was developed in 2010. Though developed over a decade ago, the Plan is still referenced in the 2019 Comprehensive Plan and on the City’s planning website. To that end, it is reviewed here as it appears to continue to serve as a guiding document for Downtown’s vision and for insight into a community consensus, in 2010, on parking.

“Great downtowns encourage walking, biking, and transit, but are also accessible by automobiles. Meridian’s downtown will accommodate automobiles and provide efficient and convenient parking. On-street parking, structured parking, and surface parking lots will be convenient and used where appropriate to bring patrons close to businesses, retail outlets, and homes.”

Destination: Downtown is a Vision Plan for the long-term future of downtown Meridian. This document illustrates the overall Vision for the future of downtown through images and text and is accompanied by Implementing the Vision, which identifies specific projects and implementation strategies for achieving that vision, including parking.

The Plan envisions six unique downtown districts, each with distinct design, density, and streetscape characteristics that will “help to define them and create variety.” Great detail and thought are given to the character envisioned for each district. For this analysis, excellent insight and guidance are outlined for each district as to the role that parking should play, whether by location, design, or connectivity to other transportation modes. These statements of intent define the role of parking and how it should then be provided and managed to facilitate a strategic downtown vision.

In all, there are forty-six references to parking in the Destination: Downtown Plan. Many of the references provide clear guidance that can inform and activate strategy creation and decision-making for both parking and “multi-modal” access. Some examples from the plan include:

- **Northern Gateway District - Bookend to Downtown.** *‘The Northern Gateway district is a prime location for a consolidated parking area or structure, in addition to other parking types, to support the parking needs in the area, and encourage walking’ (page 7).*

- **Washington and Main District – Residential Streetscape.** *‘The district will maintain larger setbacks offering ample space for landscaping, outdoor dining, parking, and general pedestrian amenities’* (page 9).
- **TOD / Cultural District**
 - **Emphasize civic/TOD facilities.** *‘Emphasize and develop the core area of the district to support a multi-modal transit stop’* (page 15).
 - **Dense Development.** *‘Ensure high densities necessary to support transit-oriented development, and to create opportunities for mixed and vertical integration of uses’* (page 15).
- **Southern Gateway Entertainment & Hospitality District – ‘Extensive Landscaping: Heavy landscaping throughout the district, including parking lots will ensure this area projects a positive first impression and beautifies this gateway to the city’** (page 17).

Additionally, where the plan focuses specifically on parking, clear statements of intent are made (pages 19 – 21). For instance:

- *Destination: Downtown envisions a downtown with efficient, easily accessible, and affordable parking opportunities. Yet one that still encourages walking and future transit use.*
- *Design surface parking with adequate landscaping and tree cover, to offer shade and reduce urban heat island effects.*
- *Consolidate parking within the core of blocks and avoid providing large surface parking lots in front of downtown buildings.*
- *Provide on-street parking, where possible, to provide more parking opportunities and to create activity on the City streets.*
- *Introduce parking structures that blend in and conform to the downtown’s architecture.*
- *Transition the City Core on-street parking to paid parking.*
- *Do not charge for parking in any of the other districts unless future demand necessitates it.*
- *Transition existing parallel to angled parking, where feasible.*
- *Acquire land for future surface and structured parking.*

Findings

Though nearly twelve years since its development, the Destination: Downtown Plan provides an excellent resource and foundation for envisioning parking not as simply a place to store a vehicle, but as a component of (a) a larger system of access, (b) a key factor that drives urban form, and (c) a resource that needs to be strategically developed and managed.

Summary

What might be missing in the plan is more detail as to those who are deemed priority users of specific supplies of parking, i.e., on-street, off-street, downtown, and in adjacent residential areas. With that said, the Destination: Downtown Plan provides clear direction as to the role of parking within the context of desired urban form and integration into a truly multi-modal system. The Plan should continue to provide strategic input into parking management, which can serve as a foundation for the 2023 Downtown Parking Master Plan effort.

B. City of Meridian 2021 – 2025 Strategic Plan

Overview

The Meridian Strategic Plan outlines six strategic focus areas for the City for the 2021 – 2025 period. The focus areas are:

- Responsible Growth
- Transportation & Infrastructure
- Business & Economic Vitality
- Public Health & Safety
- Vibrant & Sustainable Community
- Government Excellence

“Meridian will revitalize its downtown and grow its targeted commercial areas to ensure a balanced economic base that supports family-wage jobs creation. We will retain and recruit businesses and services that support our targeted industries and community needs.”

For each focus area, the Plan states Strategic Goals as well as action strategies for each goal. It is clear the overall goal of the Strategic Plan is to be “more efficient and effective in zoning, planning for denser projects in some parts of the city and work with developers to do so.”²⁸ Key Strategic themes within the document also emphasize “growing responsibly,” addressing transportation concerns,” and “downtown revitalization.”

The Plan’s 2021 and 2022 Annual Reports show progress in each of the focus areas established in the Plan.

Findings

For this review, parking is referenced just once in the Strategic Plan, though it fits naturally in the Plan’s focus areas for Business & Economic Vitality and Transportation & Infrastructure.

The single reference to parking is found in the Business & Economic focus area goal to “pursue multi-story residential and mixed-use projects in downtown.” The action strategy for this goal is to “develop a strategy to address long-term parking needs for residential and commercial areas.” A corollary strategy in this focus area would “maximize space usage of new facilities built downtown,” which is supportive of the concept of shared parking, right-sized parking, and compact urban form.

The goals and strategies within the Transportation & Infrastructure focus area emphasize efficient movement within and about Meridian and a range of road, sidewalk/pathway, and street lighting strategies to achieve the broader outcome of a connected system that includes pathways, sidewalks, and a “multi-modal approach” that, at least definitionally, would include efficient parking and its management.

Within the framework of improved multi-modal access, parking plays a critical role, affecting urban form outcomes that can limit or facilitate density. The Strategic Plan is a high-level document, calling for a

²⁸ Meridian Press, *Growth a major theme as Meridian updates strategic plan* (November 18, 2020).

range of goals and strategies to position Meridian to “be the West’s premier community in which to live, work and raise a family.” We acknowledge that the Plan has a City-wide focus, and this review is assessing how the Plan would affect Downtown parking outcomes. In this regard, the Plan’s intended outcomes for better transportation efficiency, connectedness, and multi-modal access are supportive of goals and standards for more efficient building and strategically managing parking, inside and outside of the Downtown.

Summary

The Strategic Plan currently lacks clarity on parking and how, within a multi-modal system, parking would be regulated, managed, and built to achieve desired outcomes guided through policy and code.

6.5 ASSESSMENT OF MUNICIPAL CODE: Title 7 - Motor Vehicles and Traffic

The following analysis provides an overview of the Meridian Development Code's provisions as related to the regulation of parking, parking management, and delivery of parking services. The intent is to understand the code provisions related to parking downtown and offer recommendations to augment policy guidance and improve regulatory standards within the code. This will support a more successful parking program and align the code with parking policy and goals.

The intent is to understand the code provisions related to parking downtown and offer recommendations to augment policy guidance and improve regulatory standards within the code. This will support a more successful parking program and align the code with parking policy and goals.

A review of the Municipal Code found references to parking or corollary areas that could better address parking through clarification or revision. This included the following code sections.

- **Title 7 – Motor Vehicles and Traffic**
 - Chapter 2 – Parking Regulations
- **Title 11 – Unified Building Code**
 - Chapter 1 – General Regulations
 - Article A: Definitions
 - Chapter 3 - Regulations Applying to All Districts
 - Article C: Off-street Parking and Loading Requirements

A. Code Guidance: Title 7 – Motor Vehicles and Traffic / Chapter 2- Parking Regulations

Purpose (Title 7, Chapter 2)

Based on the premise that growth in the downtown (and other emerging commercial and residential areas) will require an integrated and comprehensive package of strategies, it is important to establish clear priorities to facilitate an efficient and successful parking program. Many cities (like Meridian) include in their codes a section called “purpose,” “intent,” or “legislative findings,” which serve as pre-

sections of a code chapter.²⁹ The goal of purpose statements is to create a relationship between code regulations and a priority intent. Without clear and consensus priorities, it becomes difficult to initiate solutions requiring changes to the parking system (and the status quo) and form partnerships between stakeholders that facilitate success. The Meridian code should reflect this.

At present, Title 7, Chapter 2 – Parking Regulations, of the code does not include any reference to parking policy priorities. As discussed earlier, the Comprehensive Plan and the Downtown Meridian Transportation Management Plan are mostly silent on parking policy. As regards transportation "policy," it appears the focus of current code guidance is heavily weighted toward street systems, new transportation infrastructure, and safety (all important elements).

To this end, we recommend adding a new section preceding what is now 7-2-1 of Title 7, Chapter 2 – Parking Regulations, called Purpose – Parking and Parking Management. This would preserve Chapter 1, which primarily refers to policies related to traffic. The new section might read:³⁰

"Where parking is regulated, the City of Meridian intends to:

1. Coordinate parking in a manner that supports the City's vision for a growing downtown, emerging districts, and adjacent neighborhoods.
2. Achieve parking operations that are financially sound and self-sustaining, taking into consideration affordability and efficiency.
3. Capitalize on strategic investments in technology to improve parking management and the user experience.
4. Manage the on-street system to provide a rate of turnover that supports district vitality.
5. Reduce conflicts for access between users, prioritizing visitor access in commercial districts and residents and their guests in neighborhoods.
6. Provide sufficient parking to meet employee demand, specifically in conjunction with City-owned off-street facilities and other reasonable travel mode options or transportation demand management programs.
7. Manage parking as a critical component for the establishment of efficient multi-modal transportation networks, more compact development, and redevelopment opportunities.
8. Use performance measurements and reporting to ensure the intent and purpose for parking management are achieved."

This revision would create a straightforward and easy-to-articulate outline of purpose and intent that will better inform the public (and readers of the code) as to the need for parking management when certain conditions require City actions and programs. It will better clarify actual code regulations as they would directly tie to stated priorities.

Definitions (7-2-1)

²⁹ The Meridian code actual uses "Purpose" sections to preface specific Chapters or Articles (e.g., Title 11, Chapter 1).

³⁰ Ideally, priority policies and goals for the parking system will emanate from the Stakeholder process now underway for the Downtown Parking Master Plan (i.e., Guiding Principles for Parking Management).

To support future parking management, it may be necessary to add parking management-related definitions to the code, for both existing parking and future parking options that the City may implement. The following additions are provided for consideration within this Chapter (7-2-1 - Definitions) or other appropriate code sections as determined by the City³¹:

- **Loading zone** means a space on the edge of a roadway designated by signage for the purpose of loading and unloading passengers or materials during specified hours or specified days.
- **Metered parking** means any parking stall or parking area where the use of parking is limited by a posted maximum time allowance and requires payment of a stated fee or charge for use, whether by coin, credit/debit card, or virtual payment (online payment or database record).
- **Park or parking** means the standing of a vehicle, whether occupied or not, otherwise than temporarily for the purpose of, and while engaged in, loading or unloading property or passengers.
- **Parking facility** means a standalone off-street facility used for the primary purpose of parking motor vehicles whether or not a fee is charged including, without limitation, surface lots and parking garages.
- **Parking limiting signage** means any signage establishing time-limited parking, or any other restriction on parking, for a parking stall or parking facility.
- **Parking permit** means an authorization from the City to park in specific parking stalls, parking facilities, or areas of the City. Parking permits may be subject to conditions and restrictions on the use of the parking permit.
- **Parking space or parking stall** means an area located in the public right-of-way or in a parking facility that is available for parking a motor vehicle by an authorized user (whether hourly, daily, and/or overnight).
- **Stand or standing** means the halting of a vehicle, whether occupied or not, otherwise than temporarily for the purpose of and while engaged in receiving or discharging passengers.
- **Time-limited parking** means a restriction on the maximum time allowance that a vehicle can occupy a parking stall or parking facility and may include, without limitation, the following time-limited parking designations:
 - (a) High turnover parking stall means any parking stall signed or metered for stays of less than one hour.
 - (b) Short-term parking stall means any parking stall signed or metered for stays of one to four hours.
 - (c) Long-term parking stall means any parking stall signed or metered for stays of more than four hours.

Fees and Rates (7-2)

³¹ Within Title 11 – Unified Development Code, Chapter 1 – General Regulation, Article A – Definitions, there are five definitions related to parking. These include definitions for *Parking facility*, *Parking lot overlay*, *Parking lot reconstruction*, *Parking lot*, *restriping*, and *Parking space, off street*. The City will need to consider the definitions recommended here for consideration, reconcile these with existing definitions, and determine which Title and Chapter is most appropriate for including changes to definitions.

Chapter 2 provides an administrative procedure for the payment of parking fines (7-2-10 E). Included in this procedure is a fine schedule for the imposition of a fixed list of fines imposed for parking infractions (7-2-10 E (1)). What is lacking is a clear procedure empowering the City Council or its designee to establish rates, charges, and fees for a broader range of parking-related activities that might be considered in the future. To better align this with the definitions recommended above, an additional section in 7-2 should be created to establish such authority. Suggested language to consider:

*"The City Council is empowered by this chapter to establish from time to time, by resolution, rates, charges, and fees for any applications necessary to provide, manage, and administer **parking permits, parking meter fees and rates, parking fines and citations** charged by the City of Meridian.*

Adding the above-referenced language would allow new and/or anticipated systems, like paid parking, meters, and parking permit programs to move forward as necessary to effectively support a broader parking management plan and program.

Summary

We have offered several recommendations for revisions to Title 7, Chapter 2 of the Municipal Code. These considerations are mostly definitional, clarifying parking in the downtown area and setting the City up to better anticipate future parking activity and management of the downtown supply.

Language is suggested as to the purpose of parking, possibly in a new section preceding what is now 7-2-1 of Title 7, Chapter 2 – Parking Regulations, called Purpose – Parking and Parking Management. As in other documents reviewed in this report, the code does not give clear input into policy as to the purpose for parking. The goal here is to ensure that the parking code reflects and supports clear policy outcomes for parking in Meridian.

6.6 ASSESSMENT OF MUNICIPAL CODE: Title 11 - Unified Development Code

Most city codes throughout the United States contain parking requirements that are arbitrary and unrelated to the actual demand for parking generated by a use. Most often, there is no valid tieback from the code requirements to the actual demand necessary for, and efficient to, the proposed land use in a development. Exploring future parking needs within the context of actual parking demand will allow the City to refine its parking code and realistically plan and achieve the urban form envisioned in its vision plans.

Most city codes around the United States contain parking requirements that are arbitrary and unrelated to the actual demand for parking generated by a use. In other words, there is no demonstrated tieback from the code requirements to the actual demand necessary for, and efficient to, the proposed use in a development.

Downtown Meridian consists of a variety of uses including retail, restaurant, office, and other uses. Visions described in planning documents summarized in **Sections 1.3** and **1.4**, above call for more efficient land use, increasing densities, urban living, and more emphasis on alternative modes of access (multi-modal transportation access). Currently, parking “demand” for those uses in Meridian is guided

by the code's numerical Required Vehicles standards provided in Table 11-3C-6 Required Parking Spaces for Residential Use, and 11-3C-6B, standards for nonresidential uses.

A. Code Guidance: Title 11 – Unified Development Code / Chapter 3

Title 11 – Unified Development Code / Chapter 3 – Regulations Applying to All Districts / Article C – Off-street Parking and Loading Requirements

Purpose (11-3C-1)

“Purpose” in the Unified Development Code regarding Off-Street Parking and Loading Requirements is defined in Section 11-3C-1. The current language is as follows:

Purpose (11-3C-1)

“The purpose of this article is to provide regulations and standards for off-street parking and loading facilities with the intent to provide off-street parking areas, minimize traffic hazards and congestion, and mitigate impacts on surrounding properties.”

What the purpose statement lacks is a description of key urban form and multi-modal transportation visions described in such documents as the Comprehensive Plan, the Downtown Meridian Transportation Management Plan, and Destination: Downtown that the City would want to be expressed in its regulations, both Downtown and Citywide.

We would suggest the City consider augmenting the existing Purpose statement in 11-3C-1 to more broadly reflect the desired outcomes that parking requirements are to have on development. A sample statement is provided (top of next page).

Revised Purpose (11-3C-1)

“The purpose of this article is to provide regulations and standards for off-street parking and loading facilities. The intent is to provide off-street parking areas that are efficiently sized and constructed, minimize traffic hazards and congestion, support and integrate with other multi-modal systems of access, and mitigate impacts on surrounding properties.”

We believe this simple change provides the necessary, and important link in the code, to City growth, land use, and transportation integration expressed in its future vision for Meridian.

Residential Uses (11-3C-6)

As **Table 2** shows, there is a wide range of parking requirements developers must meet when assembling a development that includes a residential component (whether mixed-use or freestanding). Each residential “use and form” category is treated separately in the code. We have focused on the type

of residential housing that is most likely to occur within the downtown area (the focus of this study), particularly multifamily dwellings (shaded in blue on the table).

Based on the table, residential parking requirements are based on bedrooms per dwelling unit. This assumes that, for instance, all 2-bedroom unit tenants will own 2 cars, and 3 and 4+ bedroom unit tenants will own at least 3 cars. Guest spaces are also assumed to generate a demand of 1 vehicle per every 10 units regardless, for instance, that on-street parking may be available and proximate.

Table 2: Table 11-3C-6 - Current Meridian Minimum Required Parking Standards *(footnotes removed)*

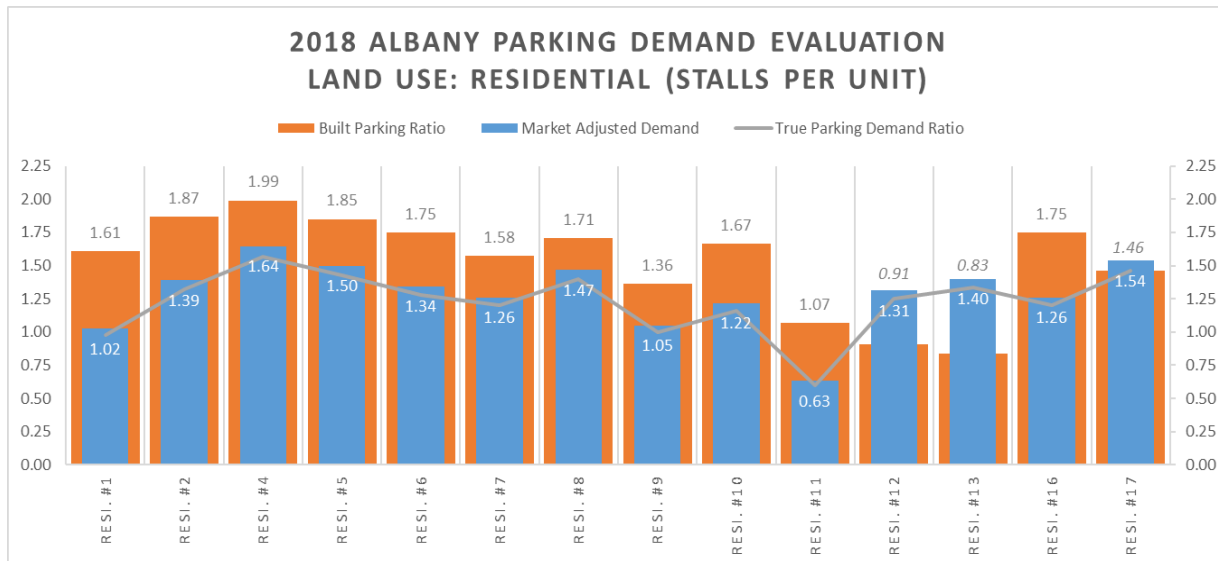
Use And Form	Bedrooms (Per Unit)	Required Parking Spaces
Dwelling, duplex, and dwelling, single-family (detached, attached, townhouse)	1/2	2 per dwelling unit; at least 1 in an enclosed garage, other space may be enclosed or a minimum 10-foot by 20-foot parking pad
	3/4	4 per dwelling unit; at least 2 in an enclosed garage, other spaces may be enclosed or a minimum 10-foot by 20-foot parking pad
	5+	6 per dwelling unit; at least 3 in an enclosed garage, other spaces may be enclosed or a minimum 10-foot by 20-foot parking pad
	Studio	1 per dwelling unit
Dwelling, multifamily (triplex, fourplex, apartments, etc.)	1	1.5 per dwelling unit; at least 1 in a covered carport or garage
	2	2 per dwelling unit; at least 1 in a covered carport or garage
	3	3 per dwelling unit; at least 1 in a covered carport or garage
	4+	3 per dwelling unit; at least 2 in a covered carport or garage
	Guest spaces	1 per 10 dwelling units
Dwelling, Secondary	1	As set forth above for single-family dwellings as determined by the total number of bedrooms on the property
Nursing and residential care facility	1	0.5 per bed
Vertically integrated residential ⁴	Studio/1	1 per dwelling unit
	2/3	1.5 per dwelling unit
	4+	2 per dwelling unit

Given the vision of the planning documents summarized in **Sections 1.3** and **1.4**, we find that these standards may not be consistent with the goals for more dense, efficient, and connected urban living that is supported by “reasonable” parking access, linked to multi-model transportation systems.

Figure B provides an example from Albany, Oregon. As the Figure illustrates, the *actual demand* for parking per residential unit was lower than the *parking required (built)*, which was driven by code

requirements in place. The sample sites focused on free-standing multi-family apartment developments, with mixes of studio to four-bedroom units. The number of units ranged from six to 152 dwellings.

Figure B: Example - Local Data Demand Analysis (Albany, Oregon)



As a first-level approach, the City of Meridian should evaluate current code demand assumptions (minimum requirements) for residential development. This would be accomplished through local measurement of existing residential properties to establish actual parking demand for listed Use and Form types in Table 11-3C-6. Findings could then aid in recalibrating requirements based on the relations of actual use of built parking supplies to actual occupied building areas.

Non-Residential Uses (11-3C-6B)

The City's parking requirements for non-residential uses are quite simple:

- Commercial and residential districts - one (1) space for every five hundred (500) square feet of gross floor area.³²
- Industrial districts - one (1) space for every two thousand (2,000) square feet of gross floor area.
- Traditional neighborhood districts – one (1) space for every one thousand (1,000) square feet of gross floor area.

From our work in other cities, these are very reasonable and efficient ratios of demand. The City may want, per the recommendation above for residential, to ground test some of these current non-residential requirements with some local data collection at existing sites, to measure actual demand for parking in relation to the number of stalls built. Nonetheless, the non-residential requirements are supportive of more efficient land uses. Also, the code provides a process for developments to propose alternatives to providing off-street parking in 11-3C-7.

³² Or 2 stalls per 1,000 SF of gross floor area.

Consideration – The Benefits of Shared Parking Demand Estimating (11-3C-7)

In Section 11-3C-7, the City allows for Parking Standard Alternatives. These include “favorable conditions” that include shared use, alternative transportation, credits (in the Old Town district), and “innovative solutions.” What may be missing in the favorable conditions approach is the ability of a developer to consolidate the total demand for parking in a mixed-use development into a “blended shared use model,” which would then be added to the Innovative Solutions section of the code (11-3C-7-2). This approach is not *shared parking between sites* but *shared parking within a site*.

Traditional models for estimating parking demand forecast demand based on single unique land uses, even within mixed-use developments. Each land use (e.g., residential, office, retail, hotel, etc.) is treated as a separate "operating unit" with its parking need derived as a total based on an assumed peak hour for that specific land use. Within the parking industry, this form of demand estimating is called "stacked demand."

Traditional models for estimating parking demand forecast demand based on single unique land uses, even within mixed-use developments. Each land use (e.g., residential, office, retail, hotel, etc.) is treated as a separate "operating unit" with its parking need derived as a total based on an assumed peak hour for that specific land use. This type of estimating assumes that parking developed within a site will be managed in a way that restricts the use of the built supply to specific users of each built land use. This approach is often reinforced in municipal parking development codes where each land use must meet a "minimum parking requirement," and in many cases, be conditioned to provide required parking as an "accessory" to the approved land use; accessory meaning parking cannot be shared with other land uses. Within the parking industry, this form of demand estimating is called "stacked demand."

What stacked "demand" does not account for or provide for is the reality of how dynamic parking demand can be over the course of typical operating days. As stated above, stacked demand is usually tied to a peak hour demand for each use, leaving hours and days of operation when the land use has low parking needs static. As an example, a commercial office use typically experiences its peak parking demand between 9:00 and 10:00 AM, on weekdays. This type of operating parking demand profile leaves significant periods of low use midday and evenings - Monday through Friday - and very little demand on weekends. On the other hand, a hotel's demand profile skews toward late afternoons and evenings, a period that could be easily and efficiently shared in a shared-use parking management format. Similarly, restaurants and entertainment venues' parking needs occur on evenings and weekends when office demand is very low.³³

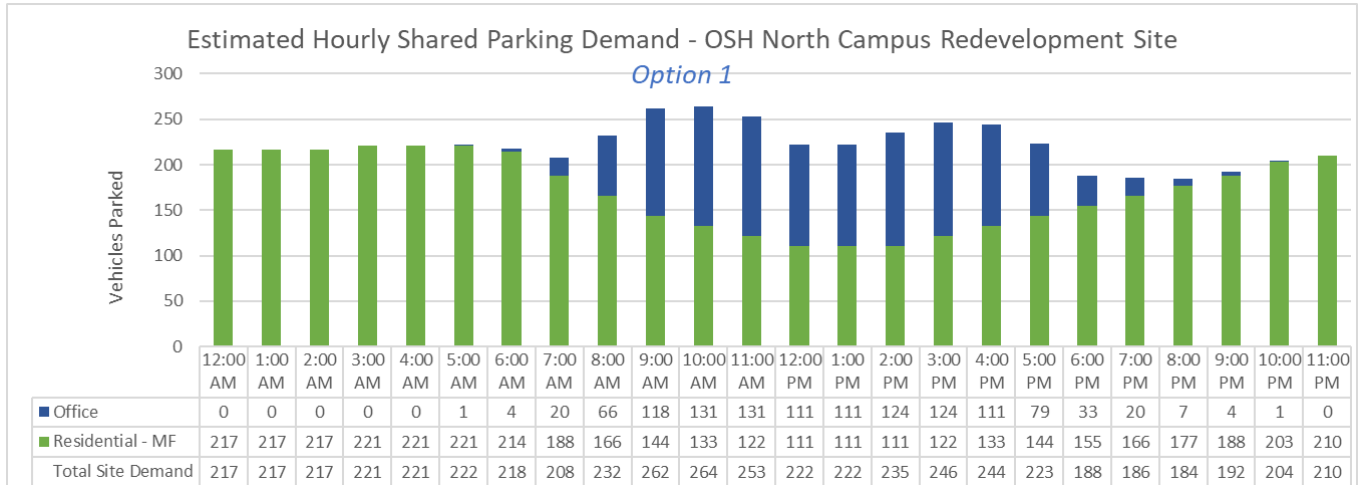
Unfortunately, typical stacked demand in the code would peg an office demand number (9:00 and 10:00 AM, weekdays) and a residential demand number (evening/weekend) and build for (and possibly require) both within a mixed-use project. This is very inefficient and costly (particularly when structured parking is involved), and often results in surplus unused parking even during peak demand hours.

A simple illustration of this is from a project in Salem, Oregon is shown in **Figure C**, a mixed-use project of multi-family residential and office. Using a blended shared-use approach, 264 total stalls would be

³³ Residential peak parking demand is found to occur at midnight and on weekends, with periods of low use occurring from about 8 AM – 4 PM, on weekdays. Low residential parking demand occurs when office parking demand is highest.

necessary to meet the demand needs of the project site, contrasted to 322 in the stacked demand estimate: a net savings of 58 stalls. Translated into surface parking, 58 stalls require about 23,200 square feet of land. In a garage, the additional development cost would be between \$2.3 to \$2.9 million.³⁴

Figure C: Example Blended Shared Use Demand Model (Salem, Oregon)



Blended shared-use demand modeling focuses on identifying the peak hours of each involved land use in a mixed-use project and blends varying peak parking needs across operating hours and days. Shared use modeling considers a parking operating day as a 24-hour period occurring over a 7-day week. This better accounts for the elasticity of parking demand. When planned for and managed effectively, the overall amount of parking needed within a mixed-use project can be reduced significantly. This leads to both higher efficiency of land use and lower project development costs.

If the City of Meridian would consider the blended shared-parking approach as a possible addition to the Innovative Solutions section of the code (11-3C-7-2), potential overbuild of parking could be avoided, which is a barrier to right-sized parking, more efficiently developed land, and other urban form and transportation goals in Meridian vision documents.

Summary

The consultant recommends a broader evaluation of the existing parking development code with the intent to right-size requirements for residential uses and ensure that requirements for non-residential parking allow for blending demand in mixed-use developments. These requirements are one of the most significant factors shaping how cities are “calibrating” codes to directly link to goals and visions for urban form, connectivity, efficiency, and livability.

6.7 SUMMARY

Parking Management is complex. A variety of elements play equally important roles in constructing a holistic plan that is thoughtful and reflective of a community’s values. Downtown Meridian is no

³⁴ Assuming \$45,000 - \$50,000 per stall constructed (based on actual NW garages constructed)

exception, with a bustling downtown and increasing new development, now is a critical time to begin thinking about how to best manage the parking in Meridian now and into the future.

This paper is intended to serve as a foundation from which the Parking Subcommittee can begin to form opportunities to connect desired visions for how Meridian will look and function in the future (policies) with the regulatory system charged with catalyzing that vision through development (code).

Appendix C: TP #3 – Existing Conditions – Supply & Operations

7.0 Existing Conditions: Supply and Operations

As part of the larger Destination Downtown Master Plan Update, the City of Meridian wants to understand its current parking program better. To accomplish this, the Meridian Development Corporation (MDC) and the City are pursuing a series of topic papers focused on specific topics related to parking management.

This Topic Paper is the third of six papers and summarizes the current parking supply within the downtown study area (on and off-street).

An understanding of the existing public parking supply and its operation in Downtown Meridian is a foundational piece in parking management that will provide a platform for data collection, more precise management, maximizing opportunities, and determining priorities for the use of stalls within the supply.

The evaluation will also present information regarding existing city operations in place to manage access to the supply. The table below indicates the Topic Paper process for this project.

Topic Papers – Parking & Transportation Access	
1.	Fundamentals of Parking Management
2.	Policies, Code, and Guiding Principles
3.	Existing Conditions: Supply and Operations³⁵
4.	Understanding the Current Parking Environment
5.	The Parking Experience
6.	Demand/New Supply/Technology

The primary intent of this topic paper is to provide a summary of the current parking supply to inform readers of the amount of parking, the format of the supply (e.g., allowed uses, time restrictions), and the differences between the on and off-street systems. A basic understanding of the inventory of parking is a foundational piece in parking management, providing a platform for:

- (a) data collection
- (b) more precise management
- (c) understanding opportunities and challenges between public and private supply, and
- (d) determining priorities related to the future use of specific stalls within the supply.

³⁵ The title for this topic paper was changed from “Parking Organization & Capacity Management” to Existing Conditions: Supply and Operations. The change was made to better reflect information gathered and the fact that current overall operations of the system are minimal at this time. Recommendations to improve and/or augment operations to maximize the supply will be included as strategy recommendations at the end of this project study.

B. On-street Supply

In April 2023, Rick Williams Consulting (RWC) senior staff conducted an in-the-field inventory of all on-street parking within the project study area. All on-street spaces were cataloged during the inventory by block face and time limit designation.

83.3% of all on-street parking in the study area in “No Limit,” or unregulated parking, a total of 1,421 stalls. This is uncommon to downtown areas striving to prioritize visitor trips and reasonable levels of turnover to maximize customer trips to street-level businesses.

Where physical stall markings were not in place, RWC used measuring wheels to estimate stall capacity. RWC uses a 23-foot standard to calculate parallel stalls on blocks that are not marked or striped. RWC also accounts, in this type of measurement, for sight lines, turning radii for curb cuts, and safety elements like fire hydrants to ensure that stall inventory estimates are accurate and cognizant of actual operational functionality within a street’s circulation system.

The downtown on-street parking inventory spans 175 parkable block faces.³⁶ In total, 1,705 on-street parking spaces are available to the public. The complete mix of stall types is summarized in **Table 1**.

Table 1: On-Street Inventory

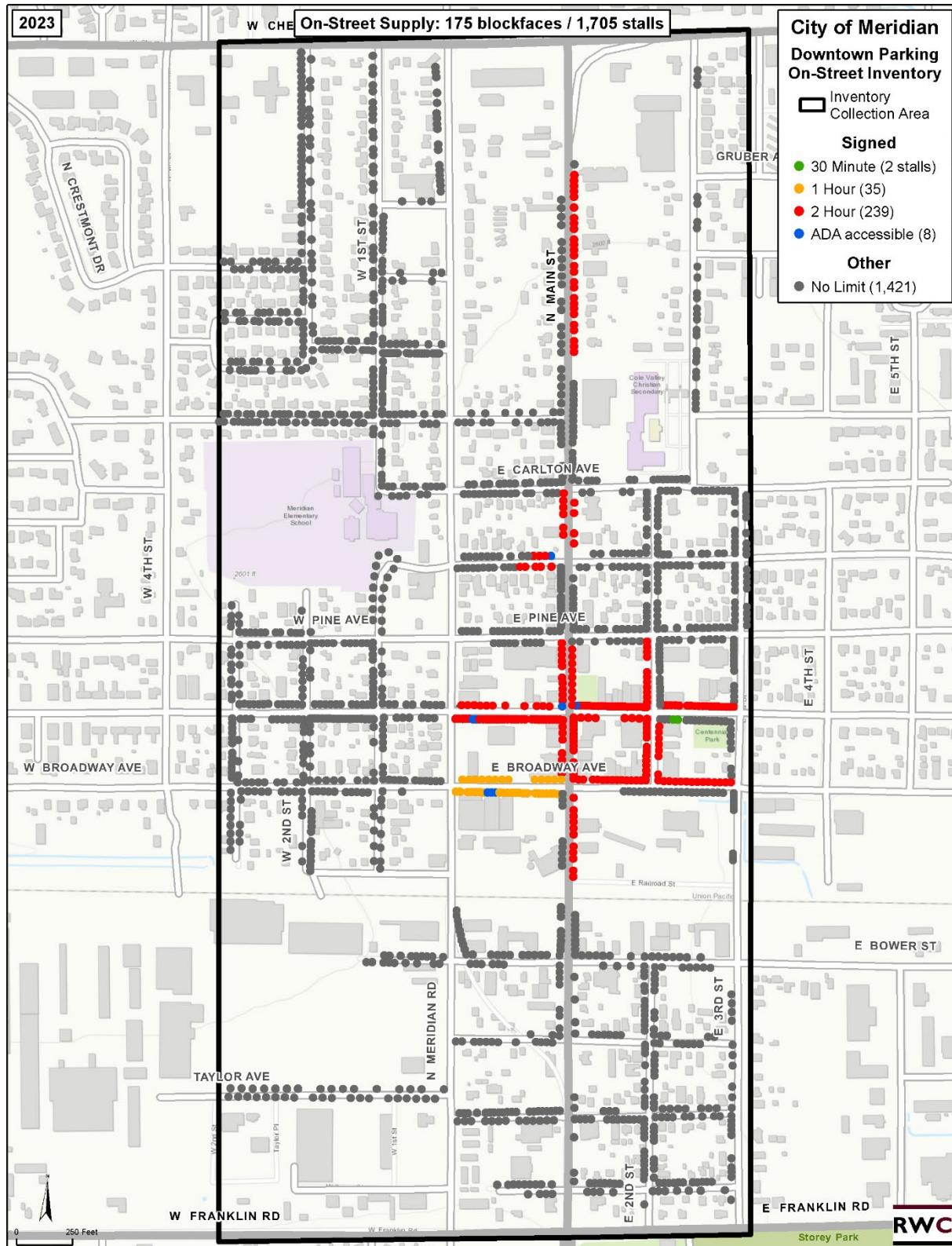
Use Type	All Stalls	% Total
On-Street Supply	1,705	100.0%
30 Minute	2	< 1%
1 Hour	35	2.1%
2 Hour	239	14.0%
ADA accessible	8	< 1%
No Limit	1,421	83.3%

As the table indicates, 83% of all parking in the study area is “No Limit” or unregulated. This category totals 1,421 parking stalls. The next highest category of stall type is 2 Hour parking (14% of supply/239 stalls). A range of stall types comprises the rest of the inventory, ranging from 30 Minutes to 1 Hour, and ADA accessible. These stalls are provided in small numbers, totaling about 4% of the total inventory.

Figure B allocates all parking by its type (see map legend) to individual block faces. As described above, most parking is No Limit (1,421 stalls). Signed 2 Hour visitor parking (239 stalls) is most concentrated south of E. Pine Avenue to E. Broadway Avenue, between N. Meridian Road and E. 3rd Street. There is also a small concentration of 2 Hour parking along the east side of N. Main Street north of E. Washington Avenue.

³⁶ A parkable block face is public right of way where vehicles are allowed to park adjacent to the travel lane. This study does not include block faces where parking is not allowed.

Figure B: Meridian Downtown – On-Street Inventory Map



C. Off-street Supply

The off-street system is comprised of 3,785 parking stalls located on 162 unique sites serving a mix of land use types. **Table 2** provides a breakout of the sites by type of land use served, total sites by land use category, and total stalls that serve these unique land uses.

The off-street inventory is comprised of small lots, averaging 30 stalls or less. The concentrations of off-street parking are in the north and south ends of the study area. The middle section of the study area has less parking in terms of both the number of sites and the size of the lots.

Methodology

During the parking inventory process, journeymen surveyors were deployed into the field to quantify all parking facilities within the study area. They identified and cataloged commercial lots by block, the number of stalls at each facility (total vehicle capacity), and the observed or perceived land use(s) they served. Based on their in-field observations, surveyors applied land use attributes to each parking facility. In some cases, the determination is obvious with clearly marked signage (or through visual cues of validation stickers or hangtags) indicating who is authorized to park there. In other cases, the surveyor will engage users onsite by asking which tenants use that parking supply. If neither option is available, they will make an educated guess as to what land use/tenant the parking most likely serves. While the database of cataloged parking is thorough and carefully determined, some lots are inevitably miscategorized; that is why the database is always being refreshed and updated with the latest information available. Building tenants regularly change, and so should the parking database tracking those use changes.

The practice of categorizing parking by land use can be a helpful tool when looking at off-street occupancy profiles, particularly after a significant change affecting the parking system (e.g., impacts of COVID-19). For example, one or two categories of land use (e.g., retail, mixed-use) may exhibit higher occupancy levels than others experiencing slower, more moderate activity levels (e.g., office use). That can be valuable information in determining where surpluses exist and can present opportunities for shared use with proximate land uses experiencing constraints or deficits.

Inventory

As the table shows, there are eleven different land use types ranging from City to Retail.³⁷ By far, the most prominent use served in the off-street supply is in the Retail category, with 71 parking lots totaling 1,572 stalls (about 42%) of the entire supply. The next largest categories are Institution (29 lots/908 stalls/24% of total supply) and Office (24/465/12%). Lots identified as City total six sites, 227 stalls, and 6% of the total supply.

The distribution of parking sites is shown in **Figure C**, with the land use types served color-coded, which is summarized in the legend at the right of the figure. It is important to note that each site in **Figure C** is assigned a unique Lot ID number.³⁸ These Lot ID numbers correlate to a detailed table of all sites

³⁷ Note: the land use type categories were determined through field verification. To determine land use type, field staff looked for identifiers like on-site signage, relationship to specific buildings, and patterns of use by those parking (e.g., visually watching where people walked to once parked). While not a perfect methodology, we have found in numerous studies that our methodology has proven highly accurate. That said, as the project develops, others, who may have direct experience with specific lots, can help to revise RWC's assessments.

³⁸ In other words, the numbers on the figure do not represent parking stall totals for those sites.

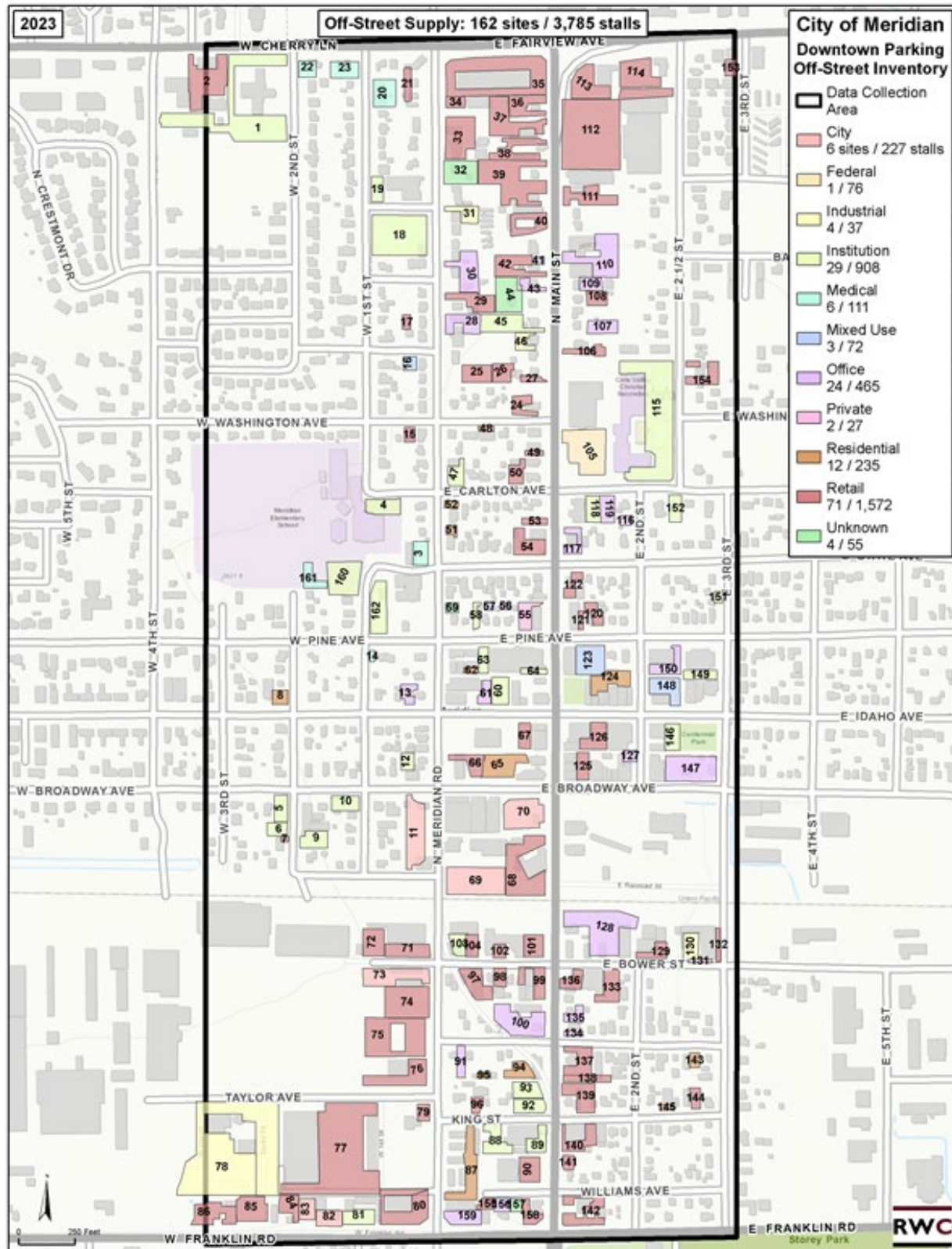
provided at the end of this document as **Appendix C-A**. The Appendix table assigns a "Lot Number" to each facility, a descriptor, and the number of stalls specific to the site.

Table 2: Off-Street Inventory by Land Use Type

Use Type	Sites Inventoried	% Sites	Stalls Inventoried	% Stalls
Off-Street Supply	162	100.0%	3,785	100.0%
City	6	3.7%	227	6.0%
Federal	1	< 1%	76	2.0%
Industrial	4	2.5%	37	< 1%
Institution	29	17.9%	908	24.0%
Medical	6	3.7%	111	2.9%
Mixed Use	3	1.9%	72	1.9%
Office	24	14.8%	465	12.3%
Private	2	1.2%	27	< 1%
Residential	12	7.4%	235	6.2%
Retail	71	43.8%	1,572	41.5%
Unknown ³⁹	4	2.5%	55	1.5%

³⁹ In these four cases, field staff was unable to determine the primary use these lots served.

Figure C: Off-Street Inventory by Land Use Type



As **Figure C** illustrates, Retail lots (which comprise 41.5% of all off-street parking) are concentrated in the north and south ends of the study area. The largest lots in key land use categories are as follows.

- *Retail*: Lot 112-Rite Aid (north end) with 193 stalls and Lot 77–Crossfire Shooting Gear (south end) with 124 stalls.
- *Institution* (which comprises 24% of all off-street parking): Lot 115, which provides 172 stalls serving Cole Valley Christian.
- *Office*: Lot 128 (Keller Associates) with 88 stalls.
- *Residential*: Lot 65 (Old Town Lofts) with 108 stalls.
- The largest parking site in the inventory is Lot 112, with 193 stalls.

The six City sites are all located south of Broadway Avenue. The largest City site is Lot 69 (City Hall 1), with 64 stalls. Lot 11 has 54 stalls and provides City Hall Employee Permit Parking (8 AM to 5 PM). Lot 73 is a gated lot for 30 stalls that houses City fleet vehicles. Lot 70 (53 stalls) is another City Hall site, and Lot 82 (13 stalls) and Lot 83 (14 stalls) serve the ADA County Juvenile Probation Services and the ACJCS, respectively.

The off-street inventory mainly comprises small lots, averaging 30 stalls or less. Again, the concentrations of off-street parking are in the north end of the study area (north of Washington Avenue) and the south end of the study area (south of Broadway Avenue). The middle section of the study area has less parking in terms of the number of sites and the size of the lots.

D. Considerations - Supply

As the project moves toward data collection, the following considerations should be kept in mind:

On-street

- Most on-street parking (83% of all stalls) is unregulated (No Limit), allowing any user to park for unlimited periods.
- The very high percentage of No Limit, unregulated stalls is not typical in downtown areas striving to prioritize visitor trips and reasonable levels of turnover to maximize customer trips to street-level businesses. The high percentage of such stalls may encourage all-day use of the on-street system by employees and residents.
- Data collection will provide a clear understanding of how the on-street system is being used today and will afford a basis to review the highest and best use for all on-street parking in the study area, recognizing the need for turnover in commercial areas and preserving residential access on streets zoned residential.

Off-street

- At 162 off-street sites, a great deal of land area is now in surface parking.
- Retail parking represents over 40% of all off-street parking, which should benefit customers and visitors coming downtown.
- Most lots, across all land use types served, are small (less than 30 stalls), with the most significant proportions of the supply located in the north and south ends of the study area.

- Data collection will provide “real-time” information on the use of the off-street supply and identify constrained and underutilized lots. Data collection will also illustrate the relationship in use patterns between the on and off-street system, which will inform the project to tailor strategies to maximize the efficient use of both parking supplies.

7.2 Operations

One of the most significant challenges of managing a municipal parking system is trying to accommodate the needs of competing user groups. The parking system cannot serve all users’ needs equally, particularly when the demand for a space occurs during similar peak times. Parking is a scarce and costly resource that needs to be prioritized for the highest and best use.

Knowing there is a limited parking supply, those responsible for managing the parking must decide who should get priority access to specific stalls. Further, managers must consider how and in what form their parking needs should or should not be accommodated for the lower priority group. As referenced in White Paper #2, “With a clear understanding of who has priority to a parking spot, policies are framed to “get the right user to the right space.”

The following sections provide a brief overview of current operational practices into how those decisions are made regarding right-of-way parking in the City of Meridian. This section focuses on the different entities with vested interests in the on-street parking supply, assessing the opportunities and challenges of how on-street parking is currently being managed.

A. Management of Parking in the Public Right of Way

As noted, clearly defined decision-making is critical to the active management of on-street parking. If decision-making is simple, transparent, and can be implemented easily, then responsive changes (e.g., time restrictions, ADA stalls, exception stalls, loading zones, stall striping, meters, etc.) can be made easily. If a manager’s ability to implement changes is cumbersome, unclear, or particularly challenging, essential parking modifications intended to support ground-floor land uses cannot happen. This can frustrate all users involved (employers, employees, residents, and visitors).

In Meridian, the responsibility of managing the right-of-way is not as straightforward as in some other jurisdictions. No single entity is charged with managing parking on a day-to-day basis; instead, it falls on one of three entities – the City of Meridian, the Meridian Development Corporation (MDC), or the Ada County Highway District (ACHD). The vast majority of Meridian’s road network is the responsibility of the Ada County Highway District. On-street parking striping and signage installation, informing customers and visitors of how and where they can park (e.g., time restrictions, loading zones), is done by request of ACHD but initiated by MDC. The responsibility of parking enforcement falls under Code Enforcement, which is within the Meridian Police Department under the umbrella of the City of Meridian.

ACHD was created in 1971 and is “a separate unit of local government that consolidated the street and road functions of Ada County and the cities within the county.”⁴⁰ ACHD provides transportation services for the right-of-way in six cities within Ada County. Funding for ACHD is primarily through local property

⁴⁰ Section 1000 – Ada County Highway District Manual -
https://www.achdidaho.org/Documents/ACHDpolicyManual/1to4000/Section1000_OverviewCommission.pdf

taxes. The assessment is determined by the number of miles within each municipality. As the City of Meridian is within Ada County, ACHD is responsible for signals, signage, and general maintenance.

*'The Ada County Highway District (referred to as the District in this manual) is the governing agency responsible for the construction and maintenance of all public rights-of-way in Ada County. The District's legal authority is based upon the laws of the State of Idaho. Specific authority is found in Chapters 13 and 14 of Title 40 of the Idaho Code.'*⁴¹

The ACHD is governed by its Board of Commissioners, which has the authority to pass ordinances, rules, and regulations. Every year, cities within Ada County's jurisdiction can submit larger prioritized projects that ACHD folds into their 5-year planning efforts.

Specific to parking, signage, and striping, follow the requirements outlined in Section 5200 (Traffic Operations) of the ACHD Policy Manual. Signage must adhere to the Manual on Uniform Traffic Control Devices (MUTCD) in color, size, reflectivity, and shape. The entity requesting the change bears the costs of any sign fabricated, installed, and eventual replacement. Small projects, such as parking signage changes, are piecemeal, as Meridian staff has no annual budget set for potential projects. Responses from ACHD are prioritized based on the urgency of the need.

Requested parking changes or maintenance requests under the management of ACHD are done informally through emails. At the City of Meridian, project requests are first vetted by a volunteer transportation committee. All City staff can make these requests without a formal process or oversight. If approved, plans are then submitted to ACHD for approval. Once received at ACHD, the request must be approved by multiple departments and the ACHD Board of Commissioners. If approved, the project timeline from request to ACHD implementation is undefined. By contrast, MDC often makes requests for changes within the downtown that fall within the urban renewal district.

A small staff at ACHD is charged with implementing parking changes at the various overseen municipalities. ACHD is not a customer service entity but an organization focused on project implementation. To this end, ACHD does not field questions nor address frustrations regarding proposed or active projects. Therefore, city staff must act as the projects' liaison, fielding questions from residents, employees, employers, and visitors. This can lead to communication disconnects (frustration) in information, timelines, impacts, etc., for ACHD projects.

Although this frustration can be felt by many residents, employees, and city staff, it is understood that cities within ACHD do not have the capacity nor the budget to assume the responsibilities that ACHD currently performs.

B. Enforcement

As noted above, Code Enforcement oversees parking enforcement and is housed within the Meridian Police Department. Code Enforcement for parking typically assigns six (6) full-time staff providing

⁴¹ Section 1002 – Legislative Authority -
https://www.achdidaho.org/Documents/ACHDpolicyManual/1to4000/Section1000_OverviewCommission.pdf

routine daily on-street parking enforcement and call-in request enforcement. There is no parking enforcement vehicle, so on-street parking enforcement personnel walk the Downtown monitoring on-street parking stalls twice daily, Monday through Friday, 8:00 AM - 6:00 PM. Enforcement does not operate on the weekends.⁴²

Code Enforcement personnel physically chalk vehicle tires on-street to calculate the length of stay and to determine if a citation is warranted for violating the posted time stay. Citations are issued by both paper slips and through a proprietary electronic system. Payment of citations can be made in person, via mail, and online. Parking citations range from \$15 for exceeding the time restriction for an on-street stall to \$100 for parking in a designated accessible stall. Parking fines must be paid to the Police Department within seven (7) days of the citation.

C. Cost/Revenue

Requested changes to the parking system in Meridian are expressly at the cost of the entity making the request. Code Enforcement and other departments in the City can make requests to ACHD through an informal process (email). The expenses related to those requests (e.g., signage, striping) are paid through the general fund. There is no annual budget for forecasted costs such as additional signage, replacement, striping, etc.

Revenue generated by the parking system is solely derived through parking citations. At present, citation revenue returns to the General Fund.⁴³

A. Considerations – Operations

The City of Meridian's parking operations is unique, with ACHD controlling the ability to make parking-related changes to the on-street environment. Requested changes are sent to ACHD for approval, and then, if approved, requests are processed. Therefore, the City of Meridian does not control the ability to be proactive or, at the least, highly responsive to immediate needs.

Working within the existing system's structure, some considerations to increase efficiency, transparency, and accountability include:

Organization

- ❖ **Establish a Single City Point of Contact for Parking.** Administrative and operational responsibilities for parking in public assets are spread between the City and ACHD. There is no single entity responsible for parking management within the City. If implementing a new downtown parking plan is a desired outcome, then the overall administrative and operational management of the City's on and off-street supply will need to be addressed.
- ❖ **Establish an Annual Parking System Implementation Action Plan.** Develop an annual work plan outlining specific prioritized infrastructure improvements to be implemented over the fiscal

⁴² As noted in Section 2, Table 1, there are 284 spaces requiring enforcement. All remaining spaces in the downtown study area are No Limit, allowing unlimited use.

⁴³ The annual revenue generated by citations and the cost of enforcement was unavailable at this time.

year. These annual work plans should be based on a larger 3- or 5-year capital improvement plan. This will guide budgeting, particularly when projects span multiple years or require allocations from non-general funds sources.

- ❖ **Meet Semi-Annually with Parking Advisory Committee.** Continue the positive work established with the Destination Downtown Parking Subcommittee by meeting with them at least twice a year (perhaps more, when warranted). The group can provide guidance on prioritizing parking-related projects for downtown and suggest budget allocations when requested. When determining project priorities, the group can refer to the established guiding principles and how they relate to the vision and goals for downtown.
- ❖ **Conduct Periodic Evaluations of the Parking System.** As with this study, it is critical that parking management practices and strategies are executed using the most recent, high-quality data available. It will be important for the City to continue data collection moving forward to monitor how the system is performing and to determine how effectively implemented strategies are working. Having annualized quantitative data will allow the Parking Advisory Committee and city staff to compare system performance metrics from one survey to the next; for example, elements such as unique vehicle trips (and vehicle hours parked) provide a bellwether for downtown activity levels. Future studies can and should be planned for in the Annual Parking System Implementation Action Plan.

Financial Sustainability

- ❖ **Establish Basic Financial Reporting and Service Performance Metrics.** A consolidated line-item tracking of annual enforcement labor/hardware costs and citation revenue should exist. This should be easily accessible and serve as a measure of whether citation revenue covers the cost of enforcement. Similarly, metrics related to the annual number of citations issued (by type of violation) and rate of payment compliance should also be tracked. This provides information on the rate of user compliance and can target areas where changes to the system (e.g., time stays, reduction of No Limit stalls, etc.) might be made. As with the above section on Organization, as the Downtown parking management effort evolves, more coordination and tracking of the parking will be necessary to ensure efficiency and performance.
- ❖ **Establish a Parking Enterprise Fund.** Creating a separate fund to house parking-generated revenues (e.g., citation fees) that can be reinvested into the transportation system. This begins to put parking on the path toward revenue neutrality, where revenues generated from the system pay for enforcement and (eventually) capital expenditures. Eventually (10+ years later), if downtown Meridian elects to install parking meters, the fund will already be established to manage and house those revenues, keeping them deliberately separated from general fund dollars.

Communications

- ❖ **Formalize Existing Service Request Process** – Currently, parking requests to ACHD are informal through email and/or phone. To track requested changes/maintenance more accurately, a formal process should be created. This can be as simple as an online form. The form can be

categorized (e.g., signage maintenance, signage request, stripping, etc.). By creating a process, a database of requests can evolve, which can provide annual trends/needs, allow for tracking costs/expenses, and estimate yearly budgeting. This process would provide straightforward communication between the City and ACHD.

- ❖ **Maintain a High Level of Communication with Those Accessing Downtown.** Continually refresh and update the downtown parking map online, reflecting the most recent changes made to the parking system. Make the parking map more prominent on the website (i.e., easy to find) for visitors downtown, giving them a better understanding of what to expect before they arrive. As more on-street management is introduced, it can also serve as a resource for employers and employees, informing them where the preferred locations are to park (supportive of a customer-first policy). Clear communication also involves intuitive signage, guiding, particularly first-time visitors downtown, where to park with assurance and without fear of citation.

Efficiency

- ❖ **Transportation for Enforcement** – With on-street time stays ranging from 30 minutes to 2 hours, the current level of walking patrol enforcement does not have the ability to truly enforce the on-street system. With minimal parking revenue and the small area of Downtown, enforcement transportation options could include low-cost means such as e-bicycles, which would create more efficiency and allow easy coverage of a larger geographic area.
- ❖ **Consider investing in Handheld Enforcement Hardware.** Though it may not be immediately warranted, having an electronic enforcement system would make the enforcement process more efficient (e.g., electronically filing citations administratively). It would allow code enforcement officers to quickly enter license plates and run reports on time stay abuse or vehicles with chronic violations. Though this consideration comes with some cost, it could create a more efficient and compliant parking system, potentially boosting revenue generation.

7.3 Summary

The Meridian Downtown parking system is nascent as overall management goes. The overall *supply of public* parking totals 1,705 stalls on-street, and 227 stalls off-street (in six City lots). Within the on-street supply, just 284 stalls (<17%) are time-limited and enforceable. The parking “system” lacks a single point of contact for issues related to parking and programs for tracking, accounting, communications, decision-making, and strategic planning for parking. That said, this may work at the current level of use within the system for the immediate future.

Nonetheless, as the Downtown grows, and if the community’s vision for the area outlined in such documents as the *Destination: Downtown Plan* and *Downtown Meridian Transportation Management Plan* is to be realized,⁴⁴ more formal fundamentals of parking management will need to be evaluated and strategically implemented. Key to that transition will be establishing a centralized administrative and organizational structure to house the City’s parking management agenda and establishing key metrics of performance that are routinely tracked and evaluated.

⁴⁴ See RWC Topic Paper # 2: Policy and Code Review (April 2023)

7.4 APPENDIX C-A: OFF-STREET INVENTORY BY UNIQUE SITE

Lot Number	Facility	Stalls	Use Type
-	Off-Street Supply Inventoried (162 sites)	3,785	-
1	Church of Jesus Christ of Latter-Day Saints	173	Institution
2	The Basement/Agents With A Smile	55	Retail
3	Vance Medical	17	Medical
4	Meridian Elementary Staff Parking Only	17	Institution
5	Meridian Food Bank Patrons Only	14	Institution
6	Food Bank Trucks Only	14	Institution
7	Calico Luxury Cat Boarding	2	Retail
8	Apartment Complex 1	16	Residential
9	Volunteer Parking Meridian Food Bank	17	Institution
10	Patrons of Meridian Food Bank	15	Institution
11	City Hall Employee Permit Parking (8 am-5 pm)	54	City
12	Veterans Memorial/American Legion/Vietnam Vets of America/Veterans of Foreign Wars	10	Institution
13	Client Vendor Entrance - Bekinney Team	12	Office
14	Paradigm Health Services	5	Medical
15	Fred's Barber Shop	6	Retail
16	Insurmart/Meridian Lash Haus	5	Mixed Use
17	Inside Out Salon	5	Retail
18	Legacy Church	109	Institution
19	Legacy Church	7	Institution
20	Primary Health	42	Medical
21	Human Bean	11	Retail
22	Meridian Family Eye Care	10	Medical
23	Primary Health - Patients and Staff Only	24	Medical
24	Meridian Cycles	10	Retail
25	Better Life Chiropractic	22	Retail
26	Sparq Custom Lighting Trailer	15	Retail
27	Sparq Lighting	6	Retail
28	Medical Plans of Idaho	16	Office
29	Expression Salon	16	Retail
30	Accord Serv CPAs	15	Office
31	Sunshine Design & Build	12	Industrial
32	Gravel Lot 2	30	Unknown
33	Cherrys & Multi Biz	33	Retail
34	Tattoo Parlor	10	Retail
35	Whitewater Salon & Other Biz	121	Retail
36	Main Street Burger	16	Retail
37	Kahootz Steak/Alehouse	36	Retail
38	Blimpies Sub Shop	16	Retail
39	Molly Maid	46	Retail
40	Muse Tattoo	6	Retail
41	Integrated Security Resources	12	Office
42	Gold Express	5	Retail
43	A.E.S Inc	4	Office

Lot Number	Facility	Stalls	Use Type
44	Gravel Lot 1	13	Unknown
45	Patch House/Ascent Funeral Home	37	Institution
46	Saucerman Construction	5	Industrial
47	Meridian Missionary Baptist Church	13	Institution
48	Apartment 1	8	Residential
49	Dorian Photography	4	Retail
50	Customer Parking for Lavish Salon & Epis	16	Retail
51	Gravel Residential	4	Residential
52	Paved Residential	4	Residential
53	Vintage Wine Bar	7	Retail
54	Jacksons Gas Station	14	Retail
55	Private Permit Parking	22	Private
56	Feller/Wendt Attorneys	4	Office
57	State Avenue Offices	3	Office
58	Visiting Angel Living Assistance	4	Institution
59	Gravel Lot 3	4	Unknown
60	Harvest Homeschool Advantage	26	Institution
61	Century Link	12	Office
62	Apartment 2	4	Residential
63	Harvest Church Auditorium	14	Institution
64	Harvest Church Auditorium	8	Institution
65	Old Town Lofts	108	Residential
66	First Interstate Bank	31	Retail
67	Desert Fox	20	Retail
68	Feed Mill	35	Retail
69	City Hall 1	64	City
70	City Hall 2	52	City
71	Point S Tires	23	Retail
72	Point S Tires Extra Lot	24	Retail
73	City of Meridian Fleet Parking - Gated	30	City
74	Gravel Lot, Possible over-park for Bobby's Transmission	42	Retail
75	Bobby's Transmission	34	Retail
76	Napa Auto Parts	32	Retail
77	Crossfire Shooting Gear/ACSTC/G8G Insulation/Expressions By Design	124	Retail
78	237 Taylor Ave	10	Industrial
79	Idaho Fence and Deck	11	Retail
80	Miracle Ear/People Ready/Allstate	41	Retail
81	Meridian Developmental Services/Communicare Inc/Unity Services	20	Institution
82	ADA County Juvenile Probation Services	13	City
83	ACJCS	14	City
84	Window Sunshine Cleaning	12	Retail
85	Gieslers Auto Repair	25	Retail
86	Big Discount Smokes + Beer & Spirit/Gas Station	10	Retail

Lot Number	Facility	Stalls	Use Type
87	Apartments	39	Residential
88	Idaho Youth Ranch - Donations	5	Institution
89	Idaho Youth Ranch - Customer	12	Institution
90	Thrift Store	18	Retail
91	Care Counseling Clinic	10	Office
92	Idaho Youth Ranch	20	Institution
93	Idaho Youth Ranch	20	Institution
94	Resident w/trailers on property	12	Residential
95	Apartment Complex 2	9	Residential
96	Thrift Store - Donations	5	Retail
97	Nesmeth Brothers Towing	24	Retail
98	Gem State Diesel	10	Retail
99	Idaho Paun & Gold/Classi K9	20	Retail
100	Evergreen Technology	30	Office
101	Meridian Automotive	21	Retail
102	Fenced Parking for Nesmith Brothers Towing	5	Retail
103	Idaho Baseball Academy	18	Institution
104	Idaho Landscape Solutions	6	Retail
105	US Postal Office	76	Federal
106	Tiggerific	10	Retail
107	Avest	10	Office
108	Empowered	5	Retail
109	Farmers Insurance	12	Office
110	The Meridian/1404-1406 First Commercial	71	Office
111	Authentic You/T -Zers	21	Retail
112	Rite Aid/Auto Zone/Subway/Johnnys	193	Retail
113	Wells Fargo	9	Retail
114	Jack In The Box	37	Retail
115	Cole Valley Christian	172	Institution
116	Borton Lakey Law & Policy	4	Office
117	Lebeau & Assoc CPA	10	Office
118	Chapel Staff Parking	26	Institution
119	Borton Lakey Law & Policy	20	Office
120	Momentum/Rustic Pine Salon	11	Retail
121	El Tenampa	3	Retail
122	The flower place	12	Retail
123	Generations Bldg/Public Parking	34	Mixed Use
124	Private Tenant Parking	23	Residential
125	Frontier Club	24	Retail
126	First Interstate Bank/127 Saloon	20	Retail
127	EVstudio	4	Office
128	Keller Associates	88	Office
129	Classic Kitchen Doors	5	Retail
130	HOFTAC Industries	10	Industrial
131	Private off-street	5	Private
132	Ultimate Hybrid Tech/Kangen Water Store	15	Retail
133	Meridian Meat & Sausage	19	Retail

Lot Number	Facility	Stalls	Use Type
134	Easy Timeshare Relief	15	Office
135	Idaho Title Loans	7	Office
136	Glass Now	10	Retail
137	Hungry Onion Burgers	10	Retail
138	Sassy and Classy Salon	6	Retail
139	Health Food Store	20	Retail
140	Birdie Bird/Minute Man Lock & Security	24	Retail
141	Timber Coffee	6	Retail
142	Sinclair/Paul's Service Repair	13	Retail
143	Apartment 229	5	Residential
144	The Angry Easel	14	Retail
145	Apartment 3	3	Residential
146	Meridian Community Center	23	Institution
147	Rideline/VRT	56	Office
148	Masonic/Public Parking	33	Mixed Use
149	United Method Church	9	Institution
150	Pine Business Center	20	Office
151	Meridian Gathering & Resource Center	5	Institution
152	Holy Transfiguration Orthodox Church	14	Institution
153	Rifle Crafters	10	Retail
154	Strohs Chiropractic & Wellness	10	Retail
155	Royal Prestige	7	Retail
156	Simply Made Home Designs	12	Office
157	Unmarked Lot	8	Unknown
158	Cash Loans on Car titles	7	Retail
159	Meridian Professional Center	18	Office
160	Meridian Elementary Parking	51	Institution
161	Full Circle Health	13	Medical
162	Boys and Girls Club of ADA County	35	Institution

Appendix D: TP #4 – Understanding the Current Parking Environment

8.0 Understanding the Current Parking Environment

As part of the larger Destination Downtown Master Plan Update, the City of Meridian wants to understand its current parking program better. To accomplish this, the Meridian Development Corporation (MDC) and the City are pursuing a series of topic papers focused on specific topics related to parking management.

This Topic Paper is the fourth of six papers and summarizes the current parking demand of the parking supply within the downtown study area (on and off-street). The report is a comparative analysis, comparing parking usage between a typical weekday and a typical Saturday. The table below indicates the endorsed list of Topic Papers for this project.

Topic Papers – Parking & Transportation Access
1. Fundamentals of Parking Management
2. Policies, Code, and Guiding Principles
3. Existing Conditions: Supply and Operations ⁴⁵
4. Understanding the Current Parking Environment
5. The Parking Experience
6. Demand/New Supply/Technology

8.1 Executive Summary

The goal of this paper is to develop an objective understanding of the use dynamics within the parking supply downtown. Industry “best practices” metrics for evaluating on- and off-street parking supplies are provided, including occupancy, turnover, duration of stay, and hourly activity patterns. This type of data can assist the City in near-term decision-making relative to existing parking supplies to understand where parking constraints and surpluses exist and whether factors such as abuse of time limits might adversely affect access. Similarly, this type of data will aid in longer-term city planning related to parking needs for future development activity, providing insight into such issues as shared parking opportunities and the effects of planned and future development.

Overview

The study addressed the following tasks:

- A complete inventory of all on- and off-street parking in the 75-block downtown study zone.
- Compilation of utilization data (e.g., duration of stay, unique vehicles, turnover, rate of violation) for all 1,723 on-street parking stalls over two study days in 2023: a midweek day (Thursday) and a Saturday in May.

⁴⁵ The title for this topic paper was changed from “Parking Organization & Capacity Management” to Existing Conditions: Supply and Operations. The change was made to better reflect information gathered and the fact that current overall operations of the system are minimal at this time. Recommendations to improve and/or augment operations to maximize the supply will be included as strategy recommendations at the end of this project study.

- Compilation of hourly off-street parking occupancy data collected on the two data collection days with a sample of 67 off-street sites (2,551 spaces).

On-Street Findings

- The weekday and Saturday on-street parking system operates at a low level of demand. There are no significant constraints to parking, and customers will likely find an on-street parking stall near their intended destination.
- The 1 Hour stall has an average duration of stay of 1 hour and 30 minutes and 1 hour and 56 minutes for the weekday and Saturday, respectively. This would indicate that 1 Hour stalls are not effectively serving customers' time stay needs.
- The weekday and Saturday violation rates are 10.6%, and 13.8%, respectively. Industry best practice standards aim for violation rates between 5% and 9%. The City may want to consider employing additional enforcement measures.

Off-Street Findings

- The weekday and Saturday off-street parking system is not currently experiencing high demand. There is an abundance of available parking stalls distributed across the entire study area, with at least 1,235 empty stalls during the weekday peak hour.
- Weekday off-street parking demand is significantly higher than Saturdays, reaching 52% occupied in the peak hour, with 1,235 empty stalls. By comparison, the Saturday peak hour showed 28% occupancy with 1,849 empty stalls. Accounting for employee, student, and customer parking, it is not surprising that weekday off-street parking produces higher occupancies than the corresponding Saturday ones.

Initial Strategy Considerations & Recommendations

- **Simplify Time Stays** - Based on observed occupancies and rates of violation, simplifying time stays will improve the customer experience.
 - 2 Hour stalls have an average time stay of 1 hour and 38 minutes and have the lowest rate of violations of any stall type. This suggests these stalls are correctly calibrated to average customer needs and should serve as the customer "base standard" for on-street time-limited parking downtown.
 - 1 Hour stalls should be eliminated and replaced with a 2 Hour time limit. The average stay at these 35 stalls is 1 hour and 30 minutes and 1 hour and 56 minutes, weekday and Saturday, respectively. The violation rate ranges from 20% (weekday) to 22% (Saturday). These stalls demonstrate that they are not currently meeting the needs of customers.
- **Reduce No Limit Stalls** - Fifty-three percent (53%) of all on-street parking stalls in the downtown area (1,232) are No Limit, allowing unlimited free parking to users. This is not typical for street-level business-oriented downtowns. These stalls should be



evaluated to ensure they are not abutting commercial businesses and should be reformatted to a visitor-friendly time limit, like 2 Hours.

- **Maximize off-street shared used opportunities** - The amount of empty off-street parking presents an opportunity for the entire downtown. When coupled with what we learned about excessive time stays in the on-street analysis, efforts to move employees into the off-street supply would significantly benefit the entire parking system.
- **Reasonable enforcement** - Current rates of user compliance are not within compliance ranges established as best practices in the industry (5% - 9%). Currently, violation rates at timed stalls are as high as 22%. Nonetheless, current low levels of use do not suggest a need for a heavy enforcement presence; even with high violation rates, users are not being denied access to reasonably available parking. To this end, the City should continue monitoring use and compliance and calibrate enforcement accordingly—specifically, when occupancies (and constraints) increase over time.

8.2 Study Overview

A. Study Area

The study area for the downtown was established in the initial RFP solicitation for this project. The study area is bounded by E Fairview Avenue (north), W. Franklin Road (south), W. 3rd Street, approximately (west), and East 3rd Street (east). For the data collection effort, the area was further subdivided. License plate data was captured on-street within the Downtown core, which was defined as E Fairview Avenue (north), W. Franklin Road (south), just west of W 1st Street (west), and W 3rd Street (east). On-street occupancy data was collected along the on-street edges of the study boundary, primarily between W 1st Street to W 3rd Street. **Figure A** illustrates the two areas within the study boundary from which the data collection area and the license plate data efforts were cataloged.

B. Parking Inventory (Supply)

As a precursor to the data collection effort, the consultant inventoried all on and off-street parking within the downtown study area on April 13, 2023. All on-street spaces were cataloged during the inventory by block face and time limit designation, updating and validating existing City data sets for the on-street supply. Similarly, all off-street parking facilities in the downtown study area were identified and evaluated for stall count, land use type, and physical condition.



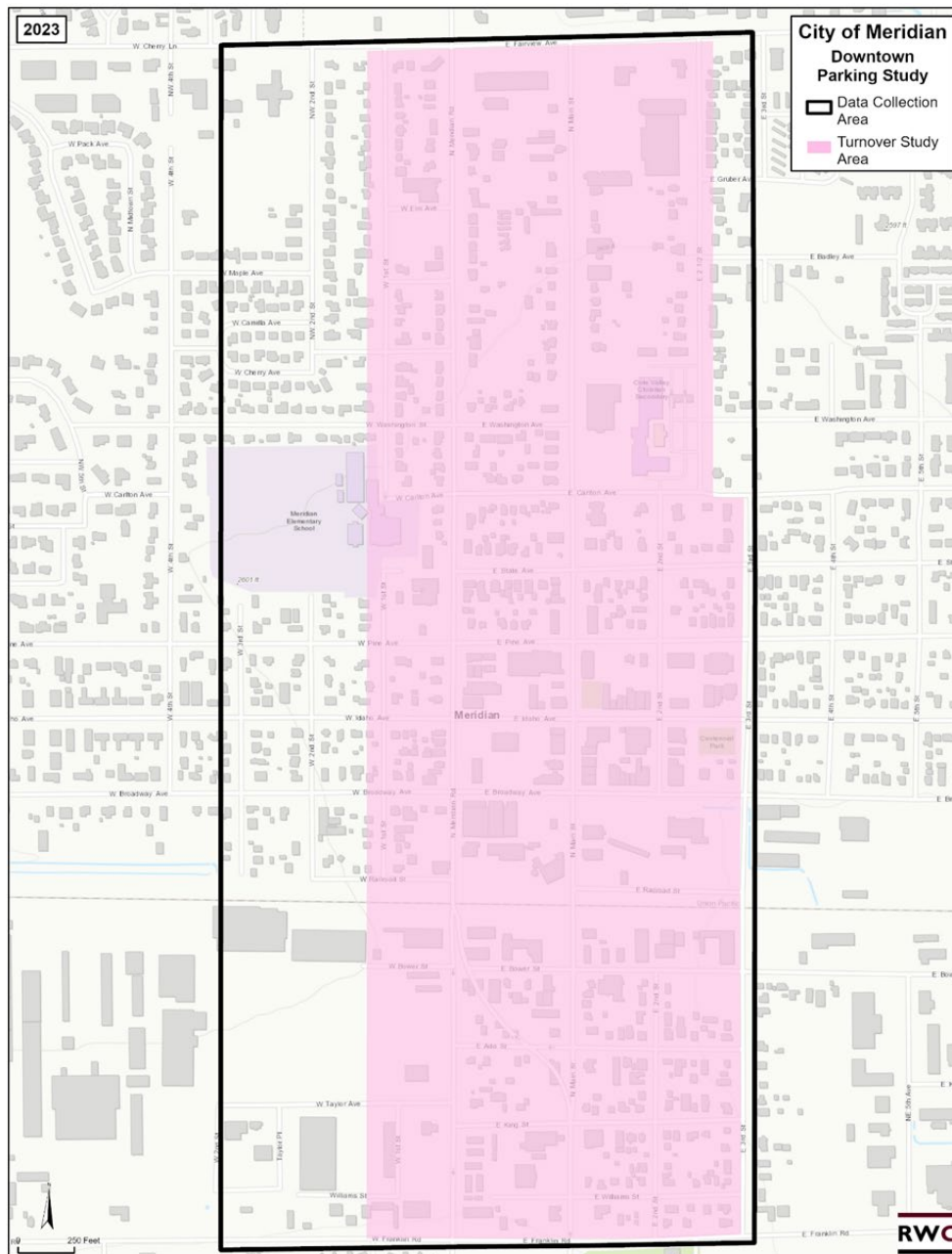
Meridian's downtown parking inventory comprises 5,508 stalls, including 1,723 on-street and 3,785 off-street at 162 sites. A breakout of on-street stalls is provided in **Table 1**, and each off-street site is summarized in **Table 6, Appendix A**.

C. Data Collection Methodology

Data was collected on Thursday, May 18th, and Saturday, May 20th, 2023. Hourly on- and off-street parking counts were collected each hour between 8:00 AM and 6:00 PM.⁴⁶ These dates and data collection hours were selected in consultation with City staff. The two dates allow for comparing a “typical” weekday (Thursday) and a Saturday. The data collection methodology for measuring parking utilization was based on Oregon Transportation & Growth Management Program’s guide on parking: [Parking Made Easy – A Guide to Managing Parking in Your Community](#).

⁴⁶ These are top of the hour numbers, meaning the 6:00 PM data counts concluded at 5:30 PM.

Figure A: Downtown Parking Study Area



On-Street

All on-street stalls within the Downtown study area (aka Turnover Study Area) were measured for hourly *utilization*. This entails counting each occupied parking stall by recording a vehicle's license plate each hour for ten consecutive hours. Utilization data provides information on metrics that include occupancy, the number of unique vehicles, the average duration of stay, violation rates at timed stalls, excessive time stays, and stall turnover. All 1,232 on-street parking stalls in the study zone were assessed for utilization (a 100% sample size).

Hourly *occupancy* counts measured the remaining 491 on-street stalls outside the Downtown study area. Mainly in residential areas, parking use is typically long-term parkers (e.g., residents/guests) and not short-term visitors (customers), often parking closer to their retail destinations.

Key characteristics of the on-street supply (as shown in **Table 1**) include:

- There are 5 stall types provided in the study area, a combination of four different time limit designations (including No Limit) and ADA-accessible stalls. There are no metered stalls in the study area.
- The two most prominent stall types are 2 Hour and No Limit stalls, representing 16% and 81% of the total inventory, respectively. This is followed by 1 Hour and 30 Minute stalls representing 2% and less than 1%, respectively.
- There are eight (8) ADA Accessible stalls. These stalls, when combined, comprise about 10% of the total supply.

Table 2: On-street Inventory (Total vs. Turnover Collection Area)

Use Type	All Stalls ⁴⁷	% Total	Turnover Stalls ⁴⁸	% Total
On-Street Supply	1,723	100%	1,232	71.5%
30 Minute	2	< 1%	2	< 1%
1 Hour	35	2.0%	35	2.0%
2 Hour	277	16.1%	277	16.1%
ADA accessible	8	< 1%	8	< 1%
No Limit	1,401	81.3%	910	52.8%

Overall, the inventory contains a large number of No Limit stalls; 1,401 or 81.3% of the 1,723 on-street stalls are No Limit. This is not typical in downtown areas striving to prioritize visitor trips and reasonable levels of turnover to maximize customer trips to street-level businesses. The high percentage of such stalls encourages all-day use of the on-street system by employees and residents. This should be evaluated, especially on block faces zoned commercial and abutting a street-level business.

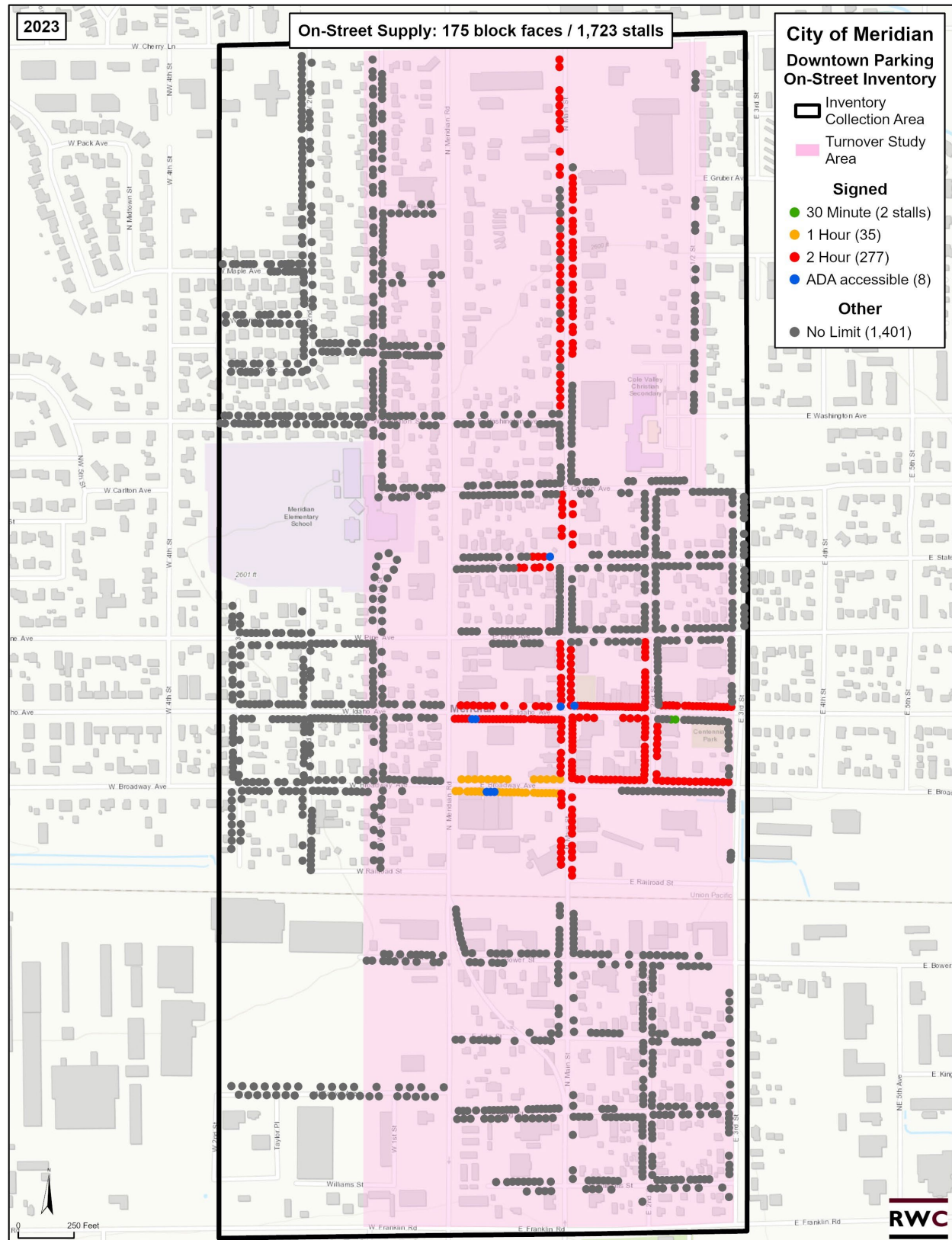
Within the Downtown study area stall inventory, which totaled 1,232 stalls, approximately 53% (910) of the on-street stalls were classified as No Limit. The remaining stalls include 30 Minute (2), 1 Hour (35), and 2 Hour (277). All eight (8) ADA-accessible stalls evaluated on-street were in the Downtown study area stall inventory.

The on-street parking inventory by stall type and location, both in the Inventory Collection Area and in the Turnover Study Area, is shown in **Figure B**.

⁴⁷ These total stalls were inventoried on 242 total block faces (75 blocks), 175 of which allow for parking.

⁴⁸ These turnover stalls were collected on 165 total block faces (46 blocks), 123 of which allow for parking. Occupancy counts were conducted on the remaining 52 block faces that allow for parking.

Figure B: Parking Inventory by Stall Type and Location



Off-Street

Off-street parking occupancy entails counting occupied parking stalls each hour of the survey day. In the downtown study area, occupancy data was collected on 67 of 162 unique off-street lots, representing 2,551 of 3,785 stalls, a 67% parking stall sample size. Sampled lots were selected to generally represent the size, type of use, ownership (public/private), and geographic distribution of all off-street facilities throughout the study zone (see **Figure C, Appendix A** of this report).

Inventory

As the table shows, there are eleven (11) different land use types ranging from City to Retail.⁴⁹ By far, the most prominent use served in the off-street supply is in the Retail category, with 71 parking lots totaling 1,572 stalls (44%) of the entire supply. The next largest categories are Institution (29 lots/908 stalls/24% of total supply) and Office (24/465/12%). Lots identified as City total six sites, 227 stalls, and 6% of the total supply.

To create a representative study sample, staff selected a variety of land uses which totaled 67 unique sites or 2,551 stalls (67%). The distribution of inventoried parking sites is shown in **Figure C**, with the land use types served color-coded, which is summarized in the legend at the right of the figure. It is important to note that each site in **Figure C** is assigned a unique Lot ID number.⁵⁰ These Lot ID numbers correlate to a detailed table of all sites provided at the end of this document as **Appendix A**. The Appendix table assigns a "Lot Number" to each facility, a descriptor, and the number of stalls specific to the site.

Studied vs. Not Studied

As noted above, a representative sample of the off-street parking lots was selected for the data collection effort. The study sample totaled 67 unique sites or 2,551 stalls. The studied sites versus the inventoried sites are shown in **Figure D** below.

Table 3: Off-Street Inventory by Land Use Type

Use Type	Total Sites	% Total	Total Stalls	% Total	Sites Studied	% Total	Stalls Studied	% Total
Off-Street Supply	162	100.0%	3,785	100%	67	41.4%	2,551	67.4%
City	6	3.7%	227	6.0%	3	50.0%	170	74.9%
Federal	1	< 1%	76	2.0%	1	100.0%	76	100.0%
Industrial	4	2.5%	37	< 1%	-	-	-	-
Institution	29	17.9%	908	24.0%	14	48.3%	497	54.7%
Medical	6	3.7%	111	2.9%	3	50.0%	83	74.8%
Mixed Use	3	1.9%	72	1.9%	2	66.7%	67	93.1%
Office	24	14.8%	465	12.3%	10	41.7%	349	75.1%
Private	2	1.2%	27	< 1%	1	50.0%	22	81.5%

⁴⁹ Note: the land use type categories were determined through field verification. To determine land use type, field staff looked for identifiers like on-site signage, relationship to specific buildings, and patterns of use by those parking (e.g., visually watching where people walked to once parked). While not a perfect methodology, we have found in numerous studies that our methodology has proven highly accurate. That said, as the project develops, others, who may have direct experience with specific lots, can help to revise RWC's assessments.

⁵⁰ In other words, the numbers on the figure do not represent parking stall totals for those sites.

Use Type	Total Sites	% Total	Total Stalls	% Total	Sites Studied	% Total	Stalls Studied	% Total
Residential	12	7.4%	235	6.2%	2	16.7%	131	55.7%
Retail	71	43.8%	1,572	41.5%	30	42.3%	1,126	71.6%
Unknown	4	2.5%	55	1.5%	1	25.0%	30	54.5%

2023

City of Meridian
Downtown
Off-Street Collected

[Black Outline] Data Collection Area
 [Pink Shaded Area] Turnover Study Area
 [Green] Off-Street Collected
 67 sites / 2,551 stalls
 [Blue] Off-Street Not Studied
 95 sites / 1,234 stalls

0 250 Feet

RWC

8.3 Measuring Performance

Parking is considered constrained when 85% or more of the available supply is routinely occupied during the peak hour. This is indicated in the graphic at right, within the red band. The figure provides a simple visual means to illustrate performance levels within a parking supply; at the system, district, sub-zone, lot, and/or block face level.

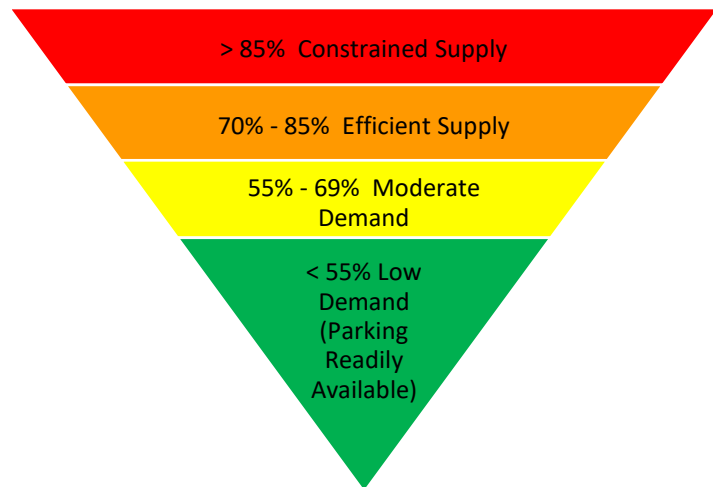
In a constrained system, finding an available spot is difficult, especially for infrequent users such as customers and visitors. This can cause frustration and negatively affect perceptions of parking in an area. Continued constraints can make it difficult to absorb and attract new growth or to manage fluctuations in demand—for example, seasonal or event-based spikes.

Occupancy rates of 55% or less (green) indicate a low demand for parking, and empty parking spaces are readily available. While availability may be high, this may also mean a volume of traffic inadequate to support active and vital businesses. Occupancy rates between the upper and lower thresholds indicate moderate (55% to 69%), shown in yellow, or efficient (70% to 85%) use, shown in orange.

An efficient parking supply shows active use but little constraint that would create difficulty for users. Efficient use supports vital ground-level businesses and business growth, is attractive to potential new users, and can respond to routine fluctuations (e.g., normal growth, events, and seasonality).

RWC's parking analysis in the Meridian downtown uses these categories to evaluate the system's performance. All occupancy graphics and heat maps also use the color scheme representing performance levels described here.

Color metrics for parking supply performance or demand



8.4 On-Street Findings

A. Occupancy

Figure E provides a comparative hour-by-hour look at the parking occupancy on both survey days.⁵¹ Occupancies represent the combined supply of 1,723 parking stalls.

Weekday

- The weekday peak hour reaches 30.5% at 5:00 – 6:00 PM.
- Weekday occupancies rise slightly and level out at 10:00 AM until 1:00 PM, decreasing slightly only to ramp back up beginning just after the 4:00 PM hour and extending to the 5:00 PM hour.

⁵¹ Note the color banding in the table that corresponds to the performance colors in the graphic in **Section D**.

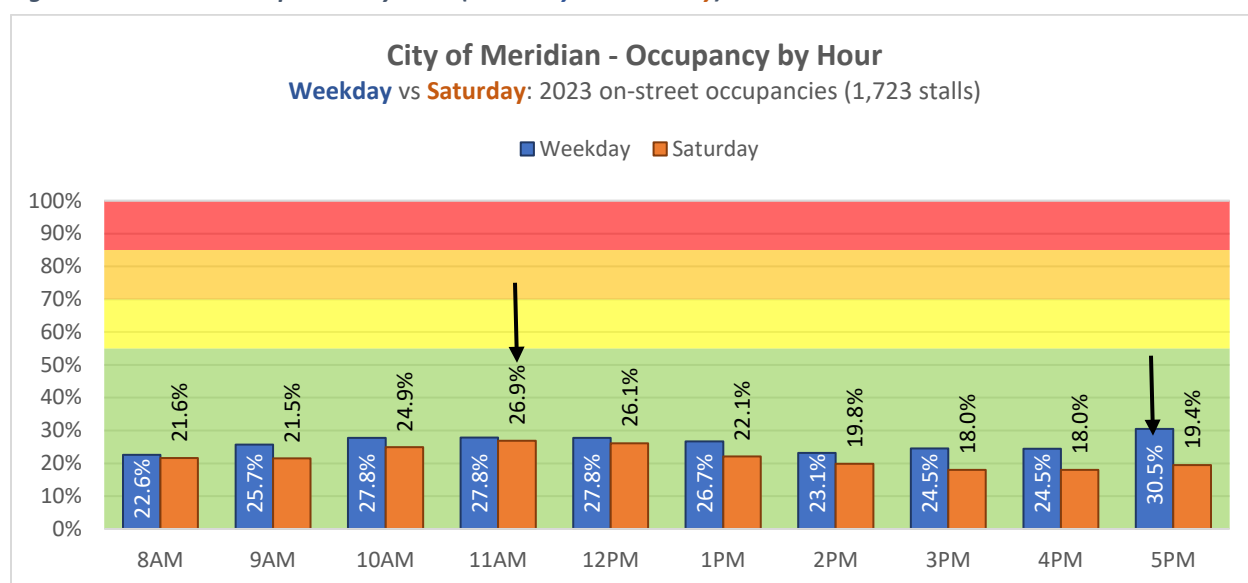
This may reflect a later afternoon transition of more traditional retail visitors to those visiting retail, restaurant, and entertainment businesses.

- On average, overall weekday occupancies are low (green range) in all ten surveyed hours.

Saturday

- Saturday's peak hour reaches 26.9% at 11:00 AM - 12:00 PM.
- Saturday demand increases from the morning until 12:00 PM, most likely influenced by the Market at City Hall and lunchtime crowds, and then slowly decreases.
- Saturday sees a slight uptick in occupancy starting at 5:00 PM, like the weekday, a possible transition of more food and entertainment-oriented visitor traffic.
- On average, overall Saturday occupancies are low (green range) in all ten surveyed hours.

Figure E: On-Street Occupancies by Hour (Weekday vs. Saturday)



B. Utilization by Stall Type

Table 3 summarizes occupancies and peak hours by stall type (time stay), the number of stalls empty at the peak hour, the average duration of stay, and the violation rate (where applicable) for the combined 1,723 stall on-street supply.

- During the weekday peak hour, 5:00 PM – 6:00 PM, 30.5% of stalls are occupied downtown. During the Saturday peak hour, 11:00 AM – 12:00 PM, 26.9% of stalls are occupied.
- At peak hours, 1,160 and 1,220 stalls are empty for the weekday and Saturday, respectively. There is a substantial supply available to accommodate growing parking demand.
- The average duration of stay of all on-street parkers is 2 hours and 32 minutes (weekday) and 2 hours and 27 minutes (Saturday).
- The average stay for No Limit stalls (stalls with no time restriction) is approximately 3 hours and 24 minutes on the weekday and 3 hours and 35 minutes on Saturday.

- The overall violation rate is 10.6% (weekday) and 13.8% (Saturday). Industry best practices for violations suggest standard rates between 5% and 9%, putting Meridian moderately outside the range of enforcement efficiency.

Table 4: On-Street Utilization by Use Type (Weekday vs. Saturday)

Use Type	Stalls	Peak Hour	Peak Occupancy ⁵²	Stalls Available	Average Duration ⁵³	Violation Rate
On-Street Supply Studied	1,723	5:00 PM – 6:00 PM 11:00 AM – 12:00 PM	30.5% 26.9%	1,160 1,220	2:32 hours 2:27 hours	10.6% 13.8%
30 Minute	2	- multiple	0% 50.0%	2 1	- -	- 0%
1 Hour	35	5:00 PM – 6:00 PM 9:00 AM – 10:00 AM	37.1% 31.4%	22 24	1:30 hours 1:56 hours	20.0% 22.2%
2 Hour	277	5:00 PM – 6:00 PM 11:00 AM – 12:00 PM	49.1% 53.8%	141 128	1:38 hours 1:39 hours	9.7% 13.4%
ADA-accessible	8	12:00 PM – 1:00 PM 10:00 AM – 11:00 AM	37.5% 25.0%	5 6	1:30 hours 1:36 hours	0% 0%
No Limit	1,401	10:00 AM – 11:00 AM 12:00 PM – 1:00 PM	29.1% 22.6%	993 1,084	3:24 hours 3:35 hours	- -

- 1 Hour stalls have average time stays of well over 1 hour, with violation rates of 20% (weekday) and 22.2% (Saturday). Though a small percentage of the total supply, 1 Hour is not a time standard conducive to a customer visit and may, in constrained periods, force users into violations.
- 2 Hour stalls have time stays of 1 hour and 33 minutes (weekday) and 1 hour and 39 minutes (Saturday), indicating customers are well served with this time stay. The City may want to evaluate expanding the number of 2 Hour stalls as this time stay appears more efficient and beneficial for customers/visitors.
- No Limit stalls show low use (green band). The City may want to explore reducing the number of No Limit stalls to provide more visitor parking (e.g., 2 Hour). This would particularly apply to block faces adjacent to commercial visitor-oriented businesses.

C. Other Characteristics of Use

Table 4 provides additional metrics of use for the on-street system. This table summarizes the use characteristics of the on-street supply, including unique vehicle trips, turnover, and excessive time stays. These metrics provide insights into how many people visit downtown and how efficiently parking spaces are used.

⁵² Apart from the entire on-street system, peak occupancies for individual use types are observed only by the turnover stalls but are then extrapolated to calculate the stalls available. This only truly affects the No Limit stalls.

⁵³ Average duration only takes turnover spaces into account but can be extrapolated for the entire on-street system.

Table 5: Other On-street Use Characteristics (Weekday vs. Saturday)

Use Characteristics	Weekday	Saturday
Average Duration	2:32 hours	2:27 hours
Vehicle Trips	1,290	1,028
Vehicle Hours Parked	3,263	2,512
Turnover Rate	3.95	4.09

Key indicators from **Table 4** include:

Vehicle Trips and Vehicles Served per Stall

- The number of vehicles parked on-street over the 10-hour data collection period totaled 1,290 on the surveyed weekday and 1,028 on Saturday. As such, the weekday auto trip activity was approximately 25% higher (262 vehicles) than on Saturday. Within the study area, each stall served an average of 3.95 trips on the surveyed weekday and 4.09 trips on Saturday.
- Over time and in subsequent studies, the City can use these numbers to compare increases (or decreases) in on-street activity, using 2023 as a baseline of business vitality in the downtown parking district. Increases in these base numbers will indicate improvements in vehicle trip growth over time and a metric to track as new strategies (e.g., simplified time stays) are implemented.

Turnover and Average Duration of Stay (efficiency of the parking system)

- In most cities, the primary time limit allows for calculating an intended turnover rate. For example, if the limit for a stall is two hours, then, over 10 hours, it can be occupied by five vehicles and meet its intended turnover rate of 5.0 turns.⁵⁴ As such, if turnover were demonstrated to be at a rate of less than 5.0, the system would be deemed inefficient. A rate of more than 5.0 would indicate a system operating efficiently. Most downtowns strive for a rate of 5.0 or higher, given the goal of supporting short-term visitor access.⁵⁵
- A higher turnover rate allows more vehicles to access the downtown area without building more (expensive) parking stalls. A simple variation of 0.5 turns (from 5.0 to 4.5) can result in a significant economic impact downtown. For example, in a community with 1,000 parking stalls, a 0.5 turn differential would reduce the potential number of daily vehicle trips by 500. If each vehicle trip spent an average of \$30, that is \$15,000 of potential unrealized revenue per day, \$105,000 per week, and up to \$5.4 million per year. While this is just a hypothetical example, it illustrates the importance of maintaining active turnover in a parking supply. This is of particular significance for street-level businesses serving customer visits.
- In Meridians' downtown, the turnover rate is 3.95 on the weekday (2 hours and 32 minutes per trip) and 4.09 on Saturday (2 hours and 27 minutes per trip). Both the weekday and Saturday rates are less than 5.0, likely reflecting the high number of No Limit stalls and a high proportion that may attract employees and residents to park on-street during business hours. Managing the right mix of time stays will be important as downtown parking demand grows.

⁵⁴ Some in the industry call this the "minimum desired design capacity."

⁵⁵ This is based on studies indicating that the most used time stay standard in retail/customer-focused downtowns is 2 Hours (both metered and unmetered).

D. Heat Maps

Often, occupancy findings within a large study area boundary can understate performance outcomes, masking possible areas of constraint within a supply. This can be addressed with heat maps that focus on smaller operating areas, illustrating use at the block face level. **Figures F and G** provide peak hour heat maps for all on-street parking in the downtown parking study zone for each study day. Within the study area, there are 75 total or partial city blocks. Within those 75 blocks, there are a total of 242 block faces, 174 of which allow vehicle parking.⁵⁶ As the maps indicate:

Weekday

- At the peak hour (5:00 – 6:00 PM), 16 block faces are constrained and are at or above 85% occupied (red). This represents 9% of all parkable block faces.
- There appears to be two clusters of constraint at the peak hour; one at the intersection of W Pine Avenue and W 1st Street and the other at the intersection of E Idaho Avenue and E 2nd Street. Combined these intersections contain 13 of the 15 block faces that are considered constrained.
- Nine (9) block faces (5%) are coded orange, denoting efficient demand, with some available stalls.
- The remaining 149 block faces are either yellow (6 / 3%) with moderate demand or green with low demand (143 / 82%). These block faces indicate ample supply to absorb vehicle demand.
- For the most part, even with the clustering of constrained block faces, there is available parking on adjacent blocks or within a short walking distance.

Saturday

- At the peak hour (11:00 AM – 12:00 PM), 10 block faces are constrained and occupied at or above 85% (red). This represents 6% of all parkable block faces.
- Eight (7) of the ten (10) constrained block faces are located at the intersection of E Idaho Avenue and E 2nd Street, where one of the weekday constrained areas occurred.
- Eight (8) block faces (5%) are coded orange, denoting efficient demand, with some available stalls.
- The remaining 156 block faces are either yellow (8 / 5%) with moderate demand or green with low demand (148 / 85%). These block faces indicate ample supply to absorb vehicle demand.

⁵⁶ As a rule, a city “block” is generally comprised of four “block faces.” Of these block faces, some allow the parking of a vehicle. Other block faces (or portions) may not allow parking. Block faces that allow vehicle parking are considered “parkable” for purposes of occupancy and utilization measurement.

Figure F: On-Street Weekday Peak Hour Heat Map – 5:00 PM

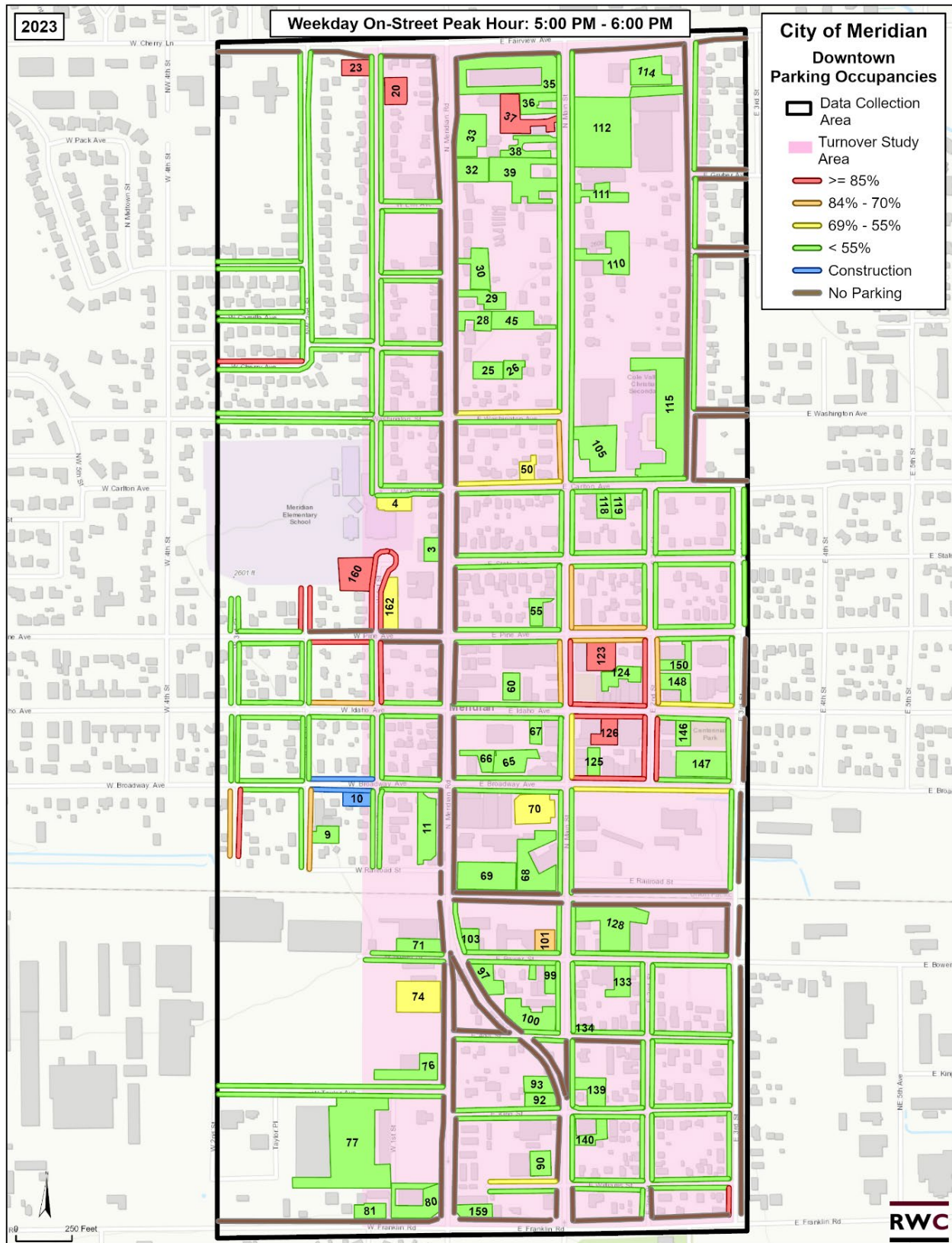
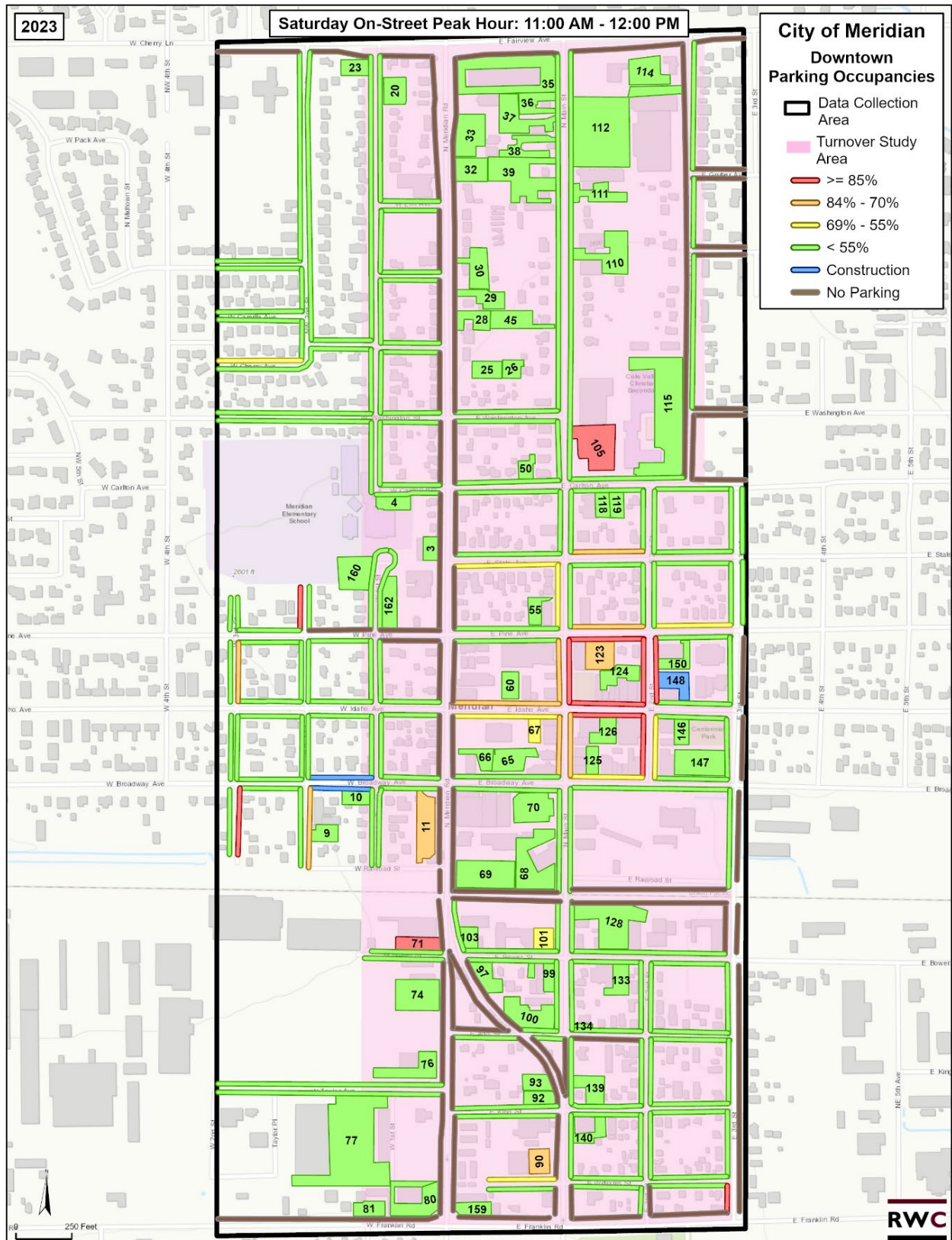


Figure G: On-Street Saturday Peak Hour Heat Map – 11:00 AM



E. Summary of On-Street Parking Findings

The weekday and Saturday on-street parking system operates at a low level of demand. There are no significant constraints to parking, and customers will likely find an on-street parking stall near their intended destination.

Both days show a similar pattern of use with slight upticks in demand between 10:00 AM to 12:00 PM, likely due to lunchtime crowds, and then an increase in demand starting at 4 PM with customers likely returning for happy hour/dinner. Regardless though, on-street parking is readily available.

8.5 Off-Street Parking Findings

Below are findings of parking performance at 67 sampled off-street parking sites, totaling 2,551 stalls.⁵⁷ As stated earlier in this report, the sample size for off-street parking represents 67% of stalls within the study area.

A. Occupancy

Figure H compares an hour-by-hour look at off-street parking occupancy on both survey days. Occupancies are consistently low throughout the operating day (green band on the figure).

- The weekday peak hour reaches 51.9% at 12:00 PM, whereas the Saturday peak hour reaches just 27.9% at 12:00 PM.
- Weekday occupancies are certainly higher compared to the Saturday. However, both weekday and Saturday occupancies are still considered "low" per the standards described in **Section D** above (green band).



B. Utilization by Type of Facility

Table 5 summarizes the number of off-street stalls by use type, their corresponding peak hour occupancies, and the number of empty stalls available at the peak hour.

Per the table, off-street facilities were sorted by the type of user they appear to prioritize, ranging from "City" parking (with three sites and 170 stalls) to "Retail" parking (with 30 sites and 1,126 stalls). In total, the consultant team designated ten (10) different categories of "use type."⁵⁸

⁵⁷ A summary of each individual off-street lot surveyed is attached as **Appendix A**.

⁵⁸ Categories were established by using the best information available at the sites (signage, relationship to building, etc.) and inputs from the project team. If more accurate information about sites becomes available, this table can be quickly updated.

Figure H: Off-Street Occupancies by Hour (Weekday vs. Saturday)

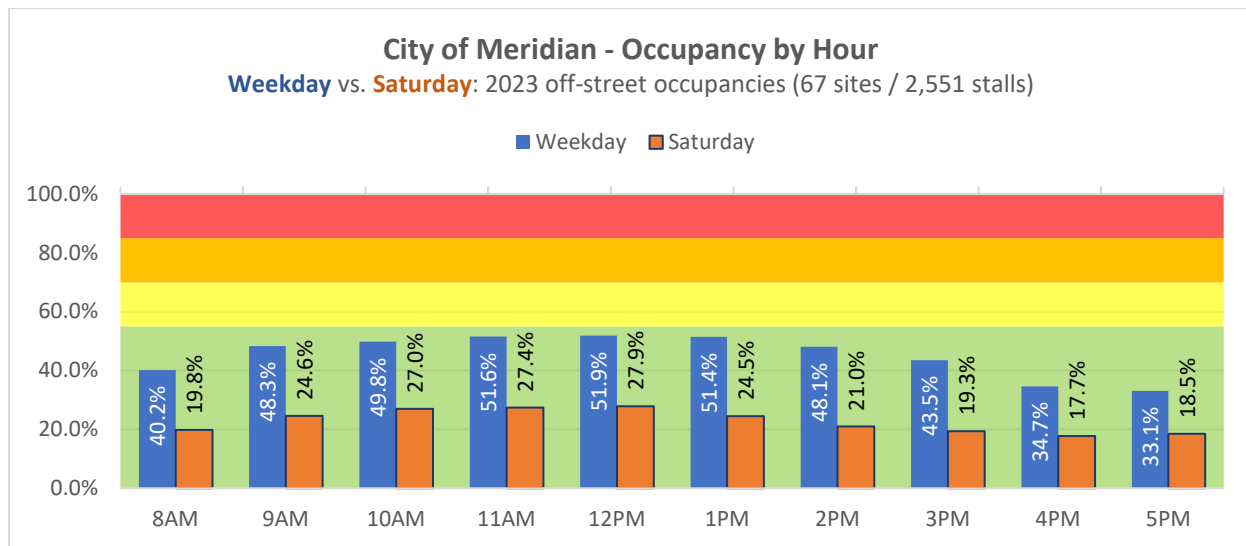


Table 6: Off-Street Peak Occupancies by Use Type (Weekday vs. Saturday)

Facility	Sites	Stalls	Peak Hour	Peak Occupancy	Stalls Available
Off-Street Supply Studied	67	2,551	12:00 PM - 1:00 PM	51.9%	1,235
			12:00 PM - 1:00 PM	27.9%	1,849
City	3	170	12:00 PM - 1:00 PM	67.6%	55
			10:00 AM - 11:00 AM	55.9%	75
Federal	1	76	9:00 AM - 11:00 AM	94.7%	4
			9:00 AM - 10:00 AM	98.7%	1
Institution	14	497	10:00 AM - 11:00 AM	68.5%	157
			10:00 AM - 11:00 AM	14.1%	427
Medical	3	83	9:00 AM - 11:00 AM	91.6%	7
			10:00 AM - 11:00 AM	13.3%	72
Mixed Use	2	67	2:00 PM - 3:00 PM	65.7%	23
			2:00 PM - 3:00 PM	79.4%	14
Office	10	349	11:00 AM - 12:00 PM	53.3%	163
			9:00 AM - 10:00 AM	12.5%	306
Private	1	22	1:00 PM - 2:00 PM	18.2%	18
			multiple	4.5%	21
Residential	2	131	8:00 AM - 9:00 AM	42.7%	75
			12:00 PM - 1:00 PM	43.5%	74
Retail	30	1,126	1:00 PM - 2:00 PM	43.1%	641
			12:00 PM - 1:00 PM	31.9%	767
Unknown	1	30	1:00 PM - 2:00 PM	93.3%	2
			8:00 AM - 2:00 PM	13.3%	26

As **Table 5** indicates:

- At peak hours, there are 1,235 and 1,849 empty stalls in the sampled off-street supply, on the weekday and Saturday, respectively, in the off-street supply.
- If occupancy performance from the sampled sites were extrapolated to all off-street parking in the downtown inventory, empty stalls would total 1,832 and 2,743, weekday and Saturday, respectively.⁵⁹
- Supply types with the highest weekday peak occupancies include “Federal” (94.7%) – The Post Office, “Medical” (91.6%), and “Unknown” (93.3%).
- The “Retail” use type has the largest number of sites and supplies of 1,126 parking stalls yet contains some of the lowest peak occupancies, regardless of survey day.

Overall, the off-street system is consistently underutilized, regardless of the type of uses lots are intended to serve. Different use types maintain varying peak hours and peak occupancies. Nonetheless, at the overall downtown peak hour for both days, a minimum of 1,235 stalls are empty.⁶⁰ Programs and strategies to capture unused supplies as a shared use opportunity should be explored.

C. Heat Maps

Figures H and I below illustrate the off-street parking heat maps for the peak hours for both the weekday and Saturday. Note that each site can be identified by its assigned lot number, which correlates to the listing of all sites in **Table 6** in **Appendix D-A**. This ID number corresponds with more detailed information about the site that includes:

- Lot ID number
- Lot description
- Number of stalls at the site
- Use type (i.e., primary user type served: commercial, residential, mixed-use)



Table 5 shows a diverse range of off-street use types condensed into a few rows, but when viewed individually in **Table 6**, many off-street lots are relatively small, containing fewer than 20 parking stalls. Seven (7) lots have over 100 parking stalls, including Lot 112, a private lot serving retail with 193 stalls.

Weekday

- Nine (9) of the 67 sampled lots reach constrained occupancy at the peak hour (red on the heat map). These lots total 463 stalls (18% of the sampled off-street supply). The smallest of these

⁵⁹ The total off-street inventory is comprised of 3,785 off-street stalls located at 162 sites. Given an off-street sample size of over 67%, we believe the extrapolated estimate of empty stalls at the peak hour provides a reasonable assessment of off-street stall availability within the entire downtown parking study area.

⁶⁰ It is important to note that at the weekday peak hour, 1,235 stalls are empty within the sampled off-street system at the combined peak hour. This does not assume that they are “available,” as most of this supply is on privately owned parking sites. The data does show that there is opportunity to capture more off-street trips, possibly through a coordinated shared parking program.

lots is the Customer Parking for Lavish Salon & Epis (Lot 50), while the largest is the Cole Valley Christian (Lot 115), with 172 stalls. The constrained lots are:

- Lot 4 – Meridian Elementary Staff Parking Only (17 stalls)
 - Lot 20 – Primary Health (42 stalls)
 - Lot 23 – Primary Health – Patients and Staff Only (24 stalls)
 - Lot 50 – Customer Parking for Lavish Salon & Epis (16 stalls)
 - Lot 66 – First Interstate Bank (31 stalls)
 - Lot 69 – City Hall 1 (64 stalls)
 - Lot 101 – Meridian Automotive (21 stalls)
 - Lot 105 – US Postal Office (76 stalls)
 - Lot 115 - Cole Valley Christian – (172 stalls)
- Nine (9) lots reach an efficient occupancy level (orange): Lots 9, 32, 33, 39, 74, 90, 100, 118, 123, and 147, totaling 332 stalls.
 - Six (6) lots have occupancies of less than 69%, indicating moderate demand levels (shown in yellow).
 - The remaining 43 lots have occupancies of less than 55%, indicating low demand (shown in green).
 - Overall, a sizable amount of empty parking in the off-street supply is commonly distributed throughout the study area.

Saturday

- One (1) of 67 sampled lots reach constrained occupancy at the peak hour. This lot, Lot 71 (Point S Tires), totals 23 stalls. This is less than 1% of the total sampled off-street supply.
- Four (4) lots maintain efficient (orange) demand (Lots 90, 92, 105, and 123).
- Five (5) lots show moderate (yellow) demand (Lots 11, 35, 99, 101 and 126).
- The remaining 57 lots have occupancies of less than 55%, indicating low demand (green)
- As with the weekday count, there is a sizable amount of empty parking in the off-street supply within the downtown parking study area.

D. Summary of Off-Street Parking Findings

The weekday off-street parking system is experiencing low demand now. An abundance of parking stalls is distributed across the entire study area, with at least 1,235 empties during peak hours. As with the weekday findings, off-street parking demand is low on Saturday, reaching just 27.9% in the peak hour with at least 1,849 empty stalls.

However, it's important to note that just because a stall is empty doesn't necessarily mean it's available. Many of the lots are privately owned and have restricted access, which can limit availability for certain users. Exploring opportunities for shared use of these empty stalls through outreach and collaboration with owners and managers of off-street parking supplies should be pursued.

In sum, the amount of empty parking presents an opportunity for the entire downtown. When coupled with potential simplification of on-street time stays and any reductions in the number of on-street No

Figure I: Off-Street Weekday Peak Hour Heat Map – 12:00 PM



2023

Saturday Off-Street Peak Hour: 12:00 PM - 1:00 PM

City of Meridian
Downtown
Parking Occupancies

[Black Outline] Data Collection Area
 [Pink Shaded Area] Turnover Study Area
 [Red Line] $\geq 85\%$
 [Orange Line] 84% - 70%
 [Yellow Line] 69% - 55%
 [Green Line] $< 55\%$
 [Blue Line] Construction
 [Brown Line] No Parking

W Cherry Ln
 W Pack Ave
 W 4th St
 W 5th St
 W 6th St
 W 7th St
 W 8th St
 W 9th St
 W 10th St
 W 11th St
 W 12th St
 W 13th St
 W 14th St
 W 15th St
 W 16th St
 W 17th St
 W 18th St
 W 19th St
 W 20th St
 W 21st St
 W 22nd St
 W 23rd St
 W 24th St
 W 25th St
 W 26th St
 W 27th St
 W 28th St
 W 29th St
 W 30th St
 W 31st St
 W 32nd St
 W 33rd St
 W 34th St
 W 35th St
 W 36th St
 W 37th St
 W 38th St
 W 39th St
 W 40th St
 W 41st St
 W 42nd St
 W 43rd St
 W 44th St
 W 45th St
 W 46th St
 W 47th St
 W 48th St
 W 49th St
 W 50th St
 W 51st St
 W 52nd St
 W 53rd St
 W 54th St
 W 55th St
 W 56th St
 W 57th St
 W 58th St
 W 59th St
 W 60th St
 W 61st St
 W 62nd St
 W 63rd St
 W 64th St
 W 65th St
 W 66th St
 W 67th St
 W 68th St
 W 69th St
 W 70th St
 W 71st St
 W 72nd St
 W 73rd St
 W 74th St
 W 75th St
 W 76th St
 W 77th St
 W 78th St
 W 79th St
 W 80th St
 W 81st St
 W 82nd St
 W 83rd St
 W 84th St
 W 85th St
 W 86th St
 W 87th St
 W 88th St
 W 89th St
 W 90th St
 W 91st St
 W 92nd St
 W 93rd St
 W 94th St
 W 95th St
 W 96th St
 W 97th St
 W 98th St
 W 99th St
 W 100th St
 W 101st St
 W 102nd St
 W 103rd St
 W 104th St
 W 105th St
 W 106th St
 W 107th St
 W 108th St
 W 109th St
 W 110th St
 W 111th St
 W 112th St
 W 113th St
 W 114th St
 W 115th St
 W 116th St
 W 117th St
 W 118th St
 W 119th St
 W 120th St
 W 121st St
 W 122nd St
 W 123rd St
 W 124th St
 W 125th St
 W 126th St
 W 127th St
 W 128th St
 W 129th St
 W 130th St
 W 131st St
 W 132nd St
 W 133rd St
 W 134th St
 W 135th St
 W 136th St
 W 137th St
 W 138th St
 W 139th St
 W 140th St
 W 141st St
 W 142nd St
 W 143rd St
 W 144th St
 W 145th St
 W 146th St
 W 147th St
 W 148th St
 W 149th St
 W 150th St
 W 151st St
 W 152nd St
 W 153rd St
 W 154th St
 W 155th St
 W 156th St
 W 157th St
 W 158th St
 W 159th St
 W 160th St
 W 161st St
 W 162nd St
 W 163rd St
 W 164th St
 W 165th St
 W 166th St
 W 167th St
 W 168th St
 W 169th St
 W 170th St
 W 171st St
 W 172nd St
 W 173rd St
 W 174th St
 W 175th St
 W 176th St
 W 177th St
 W 178th St
 W 179th St
 W 180th St
 W 181st St
 W 182nd St
 W 183rd St
 W 184th St
 W 185th St
 W 186th St
 W 187th St
 W 188th St
 W 189th St
 W 190th St
 W 191st St
 W 192nd St
 W 193rd St
 W 194th St
 W 195th St
 W 196th St
 W 197th St
 W 198th St
 W 199th St
 W 200th St
 W 201st St
 W 202nd St
 W 203rd St
 W 204th St
 W 205th St
 W 206th St
 W 207th St
 W 208th St
 W 209th St
 W 210th St
 W 211st St
 W 212nd St
 W 213rd St
 W 214th St
 W 215th St
 W 216th St
 W 217th St
 W 218th St
 W 219th St
 W 220th St
 W 221st St
 W 222nd St
 W 223rd St
 W 224th St
 W 225th St
 W 226th St
 W 227th St
 W 228th St
 W 229th St
 W 230th St
 W 231st St
 W 232nd St
 W 233rd St
 W 234th St
 W 235th St
 W 236th St
 W 237th St
 W 238th St
 W 239th St
 W 240th St
 W 241st St
 W 242nd St
 W 243rd St
 W 244th St
 W 245th St
 W 246th St
 W 247th St
 W 248th St
 W 249th St
 W 250th St
 W 251st St
 W 252nd St
 W 253rd St
 W 254th St
 W 255th St
 W 256th St
 W 257th St
 W 258th St
 W 259th St
 W 260th St
 W 261st St
 W 262nd St
 W 263rd St
 W 264th St
 W 265th St
 W 266th St
 W 267th St
 W 268th St
 W 269th St
 W 270th St
 W 271st St
 W 272nd St
 W 273rd St
 W 274th St
 W 275th St
 W 276th St
 W 277th St
 W 278th St
 W 279th St
 W 280th St
 W 281st St
 W 282nd St
 W 283rd St
 W 284th St
 W 285th St
 W 286th St
 W 287th St
 W 288th St
 W 289th St
 W 290th St
 W 291st St
 W 292nd St
 W 293rd St
 W 294th St
 W 295th St
 W 296th St
 W 297th St
 W 298th St
 W 299th St
 W 300th St
 W 301st St
 W 302nd St
 W 303rd St
 W 304th St
 W 305th St
 W 306th St
 W 307th St
 W 308th St
 W 309th St
 W 310th St
 W 311st St
 W 312nd St
 W 313rd St
 W 314th St
 W 315th St
 W 316th St
 W 317th St
 W 318th St
 W 319th St
 W 320th St
 W 321st St
 W 322nd St
 W 323rd St
 W 324th St
 W 325th St
 W 326th St
 W 327th St
 W 328th St
 W 329th St
 W 330th St
 W 331st St
 W 332nd St
 W 333rd St
 W 334th St
 W 335th St
 W 336th St
 W 337th St
 W 338th St
 W 339th St
 W 340th St
 W 341st St
 W 342nd St
 W 343rd St
 W 344th St
 W 345th St
 W 346th St
 W 347th St
 W 348th St
 W 349th St
 W 35

8.6 Current Parking Environment Summary

Overall, weekday and Saturday parking demand is low, with periods of demand ticking up (toward the latter part of the day). The off-street is underused, with over 1,200 empty stalls in lots at the highest peak hour.

The weekday on-street system use is low across the day, with ample room to absorb new demand. With at least 1,160 empty stalls at the highest peak hour, on-street parking is readily available and easy for visitors or customers to park without inconvenience. Similarly, the Saturday study showed low occupancy levels, with a peak of 26.9% and 1,220 empty parking stalls.

Off-street parking activity jumps significantly on the weekday compared to Saturday, with a more than 20% increase in overall parking occupancy off-street. Much of this increased activity is likely due to employees parking in private off-street lots. Saturday off-street activity is very low, with a peak occupancy of 27.9%, leaving over 1,800 stalls empty. As noted earlier, empty does not mean available, as most stalls are on private off-street lots. However, opportunities to capture and share underused off-street supply through shared-use strategies would be greatly beneficial given the amount of empty supply.

Consistent with both operating days is the relatively high level of violations (10.6% on the weekday and 13.8% on Saturday). Simplifying the on-street time stays (i.e., 2 Hours) would likely reduce the number of violations while accommodating customer and visitor parking needs. Further, approximately 81% of the on-street supply is 'No Limit' parking. This is unusual for a downtown where short-term customer and visitor trips should be prioritized. Removing a portion of the No Limit stalls (in commercially zoned areas) would signal that the downtown on-street parking encourages customer trips over long-term parking.

Downtown Meridian has a beautiful, walkable streetscape with fantastic street amenities and wonderful shops and restaurants. As Meridian continues to grow and develop, having this on and off-street parking data will provide a bellwether for how Meridian grows in popularity. Currently, the parking system appears to operate at low levels, which does not demonstrate the need for high levels of on-street parking management. Conversely, it does show the available capacity to absorb demand related to future growth.

8.7 Appendix D-A

Table 7: Off-Street Inventory by Site

Lot ID	Facility	Stalls	Use Type
-	Off-Street Supply (162 sites vs. 67 sites studied)	3,785 vs. 2,551	-
1	Church of Jesus Christ of Latter Day Saints	173	Institution
2	The Basement/Agents With A Smile	55	Retail
3	Vance Medical	17	Medical
4	Meridian Elementary Staff Parking Only	17	Institution
5	Meridian Food Bank Patrons Only	14	Institution
6	Food Bank Trucks Only	14	Institution
7	Calico Luxury Cat Boarding	2	Retail
8	Apartment Complex 1	16	Residential
9	Volunteer Parking Meridian Food Bank	17	Institution
10	Patrons of Meridian Food Bank	15	Institution
11	City Hall Employee Permit Parking (8am-5pm)	54	City
12	Veterans Memorial/American Legion/Vietnam Vets of America/Veterans of Foreign Wars	10	Institution
13	Client Vendor Entrance - Bekinney Team	12	Office
14	Paradigm Health Services	5	Medical
15	Fred's Barber Shop	6	Retail
16	Insurmart/Meridian Lash Haus	5	Mixed Use
17	Inside Out Salon	5	Retail
18	Legacy Church	109	Institution
19	Legacy Church	7	Institution
20	Primary Health	42	Medical
21	Human Bean	11	Retail
22	Meridian Family Eye Care	10	Medical
23	Primary Health - Patients and Staff Only	24	Medical
24	Meridian Cycles	10	Retail
25	Better Life Chiropractic	22	Retail
26	Sparq Custom Lighting Trailer	15	Retail
27	Sparq Lighting	6	Retail
28	Medical Plans of Idaho	16	Office
29	Expression Salon	16	Retail
30	Accord Serv CPAs	15	Office
31	Sunshine Design & Build	12	Industrial
32	Gravel Lot 2	30	Unknown
33	Cherrys & Multi Biz	33	Retail
34	Tattoo Parlor	10	Retail
35	Whitewater Salon & Other Biz	121	Retail
36	Main Street Burger	16	Retail
37	Kahootz Steak/Alehouse	36	Retail
38	Blimpies Sub Shop	16	Retail
39	Molly Maid	46	Retail
40	Muse Tattoo	6	Retail
41	Integrated Security Resources	12	Office

Lot ID	Facility	Stalls	Use Type
42	Gold Express	5	Retail
43	A.E.S Inc	4	Office
44	Gravel Lot 1	13	Unknown
45	Patch House/Ascent Funeral Home	37	Institution
46	Saucerman Construction	5	Industrial
47	Meridian Missionary Baptist Church	13	Institution
48	Apartment 1	8	Residential
49	Dorian Photography	4	Retail
50	Customer Parking for Lavish Salon & Epis	16	Retail
51	Gravel Residential	4	Residential
52	Paved Residential	4	Residential
53	Vintage Wine Bar	7	Retail
54	Jacksons Gas Station	14	Retail
55	Private Permit Parking	22	Private
56	Feller/Wendt Attorneys	4	Office
57	State Avenue Offices	3	Office
58	Visiting Angel Living Assistance	4	Institution
59	Gravel Lot 3	4	Unknown
60	Harvest Homeschool Advantage	26	Institution
61	Century Link	12	Office
62	Apartment 2	4	Residential
63	Harvest Church Auditorium	14	Institution
64	Harvest Church Auditorium	8	Institution
65	Old Town Lofts	108	Residential
66	First Interstate Bank	31	Retail
67	Desert Fox	20	Retail
68	Feed Mill	35	Retail
69	City Hall 1	64	City
70	City Hall 2	52	City
71	Point S Tires	23	Retail
72	Point S Tires Extra Lot	24	Retail
73	City of Meridian Fleet Parking - Gated	30	City
74	Gravel Lot , Possible over park for Bobby's Transmission	42	Retail
75	Bobby's Transmission	34	Retail
76	Napa Auto Parts	32	Retail
77	Crossfire Shooting Gear/ACSTC/G8G Insulation/Expressions By Design	124	Retail
78	237 Taylor Ave	10	Industrial
79	Idaho Fence and Deck	11	Retail
80	Miracle Ear/People Ready/Allstate	41	Retail
81	Meridian Developmental Services/Communicare Inc/Unity Services	20	Institution
82	ADA County Juvenile Probation Services	13	City
83	ACJCS	14	City
84	Window Sunshine Cleaning	12	Retail

Lot ID	Facility	Stalls	Use Type
85	Gieslers Auto Repair	25	Retail
86	Big Discount Smokes + Beer & Spirit/Gas Station	10	Retail
87	Apartments	39	Residential
88	Idaho Youth Ranch - Donations	5	Institution
89	Idaho Youth Ranch - Customer	12	Institution
90	Thrift Store	18	Retail
91	Care Counseling Clinic	10	Office
92	Idaho Youth Ranch	20	Institution
93	Idaho Youth Ranch	20	Institution
94	Resident w/trailers on property	12	Residential
95	Apartment Complex 2	9	Residential
96	Thrift Store - Donations	5	Retail
97	Nesmeth Brothers Towing	24	Retail
98	Gem State Diesel	10	Retail
99	Idaho Paun & Gold/Classi K9	20	Retail
100	Evergreen Technology	30	Office
101	Meridian Automotive	21	Retail
102	Fenced Parking for Nesmith Brothers Towing	5	Retail
103	Idaho Baseball Academy	18	Institution
104	Idaho Landscape Solutions	6	Retail
105	US Postal Office	76	Federal
106	Tiggerific	10	Retail
107	Avest	10	Office
108	Empowered	5	Retail
109	Farmers Insurance	12	Office
110	The Meridian/1404-1406 First Commercial	71	Office
111	Authentic You/T -Zers	21	Retail
112	Rite Aid/Auto Zone/Subway/Johnnys	193	Retail
113	Wells Fargo	9	Retail
114	Jack In The Box	37	Retail
115	Cole Valley Christian	172	Institution
116	Borton Lakey Law & Policy	4	Office
117	Lebeau & Assoc CPA	10	Office
118	Chapel Staff Parking	26	Institution
119	Borton Lakey Law & Policy	20	Office
120	Momentum/Rustic Pine Salon	11	Retail
121	El Tenampa	3	Retail
122	The flower place	12	Retail
123	Generations Bldg/Public Parking	34	Mixed Use
124	Private Tenant Parking	23	Residential
125	Frontier Club	24	Retail
126	First Interstate Bank/127 Saloon	20	Retail
127	EVstudio	4	Office
128	Keller Associates	88	Office
129	Classic Kitchen Doors	5	Retail
130	HOFTAC Industries	10	Industrial
131	Private off-street	5	Private

Lot ID	Facility	Stalls	Use Type
132	Ultimate Hybrid Tech/Kangen Water Store	15	Retail
133	Meridian Meat & Sausage	19	Retail
134	Easy Timeshare Relief	15	Office
135	Idaho Title Loans	7	Office
136	Glass Now	10	Retail
137	Hungry Onion Burgers	10	Retail
138	Sassy and Classy Salon	6	Retail
139	Health Food Store	20	Retail
140	Birdie Bird/Minute Man Lock & Security	24	Retail
141	Timber Coffee	6	Retail
142	Sinclair/Paul's Service Repair	13	Retail
143	Apartment 229	5	Residential
144	The Angry Easel	14	Retail
145	Apartment 3	3	Residential
146	Meridian Community Center	23	Institution
147	Rideline/VRT	56	Office
148	Masonic/Public Parking	33	Mixed Use
149	United Method Church	9	Institution
150	Pine Business Center	20	Office
151	Meridian Gathering & Resource Center	5	Institution
152	Holy Transfiguration Orthodox Church	14	Institution
153	Rifle Crafters	10	Retail
154	Strohs Chiropractic & Wellness	10	Retail
155	Royal Prestige	7	Retail
156	Simply Made Home Designs	12	Office
157	Unmarked Lot	8	Unknown
158	Cash Loans on Car titles	7	Retail
159	Meridian Professional Center	18	Office
160	Meridian Elementary Parking	51	Institution
161	Full Circle Health	13	Medical
162	Boys and Girls Club of ADA County	35	Institution

Table 8: Off-Street Peak Hour Occupancies by Site – Weekday vs. Saturday

Lot ID	Facility	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
-	Off-Street Supply Studied (67 sites)	2,551	12:00 PM - 1:00 PM 12:00 PM - 1:00 PM	51.9% 27.9%	1,235 1,849	-
3	Vance Medical	17	9:00 AM - 11:00 AM 5:00 PM - 6:00 PM	58.8% 11.8%	7 15	Medical
4	Meridian Elementary Staff Parking Only	17	12:00 PM - 1:00 PM multiple	100.0% 5.9%	0 16	Institution
9	Volunteer Parking Meridian Food Bank	17	11:00 AM - 1:00 PM 8:00 AM - 11:00 AM	76.5% 23.5%	4 13	Institution
10	Patrons of Meridian Food Bank	15	Construction 9:00 AM - 6:00 PM	- 6.7%	- 14	Institution
11		54	12:00 PM - 1:00 PM	59.3%	22	City

Lot ID	Facility	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
	City Hall Employee Permit Parking (8am-5pm)		10:00 AM - 11:00 AM	81.5%	10	
20	Primary Health	42	8:00 AM - 6:00 PM 10:00 AM - 11:00 AM	100.0% 14.3%	0 36	Medical
23	Primary Health - Patients and Staff Only	24	8:00 AM - 6:00 PM 8:00 AM - 1:00 PM	100.0% 16.7%	0 20	Medical
25	Better Life Chiropractic	22	3:00 PM - 4:00 PM 8:00 AM - 6:00 PM	86.4% 4.5%	3 21	Retail
26	Sparq Custom Lighting Trailer	15	8:00 AM - 6:00 PM 8:00 AM - 6:00 PM	33.3% 40.0%	10 9	Retail
28	Medical Plans of Idaho	16	11:00 AM - 2:00 PM 8:00 AM - 9:00 AM	37.5% 12.5%	10 14	Office
29	Expression Salon	16	2:00 PM & 4:00 PM 12:00 PM - 2:00 PM	62.5% 50.0%	6 8	Retail
30	Accord Serv CPAs	15	12:00 PM & 2:00 PM 8:00 AM - 6:00 PM	46.7% 20.0%	8 12	Office
32	Gravel Lot 2	30	1:00 PM - 2:00 PM 8:00 AM - 2:00 PM	93.3% 13.3%	2 26	Unknown
33	Cherrys & Multi Biz	33	1:00 PM - 2:00 PM 10:00 AM - 11:00 AM	87.9% 27.3%	4 24	Retail
35	Whitewater Salon & Other Biz	121	1:00 PM - 2:00 PM 12:00 PM - 1:00 PM	48.8% 56.2%	62 53	Retail
36	Main Street Burger	16	1:00 PM - 2:00 PM 2:00 PM - 3:00 PM	43.8% 50.0%	9 8	Retail
37	Kahootz Steak/Alehouse	36	5:00 PM - 6:00 PM 5:00 PM - 6:00 PM	86.1% 77.8%	5 8	Retail
38	Blimpies Sub Shop	16	11:00 AM - 12:00 PM 12:00 PM - 1:00 PM	50.0% 31.3%	8 11	Retail
39	Molly Maid	46	2:00 PM - 3:00 PM 11:00 AM - 6:00 PM	78.3% 54.3%	10 21	Retail
45	Patch House/Ascent Funeral Home	37	2:00 PM - 4:00 PM 8:00 AM - 6:00 PM	13.5% 2.7%	32 36	Institution
50	Customer Parking for Lavish Salon & Epis	16	4:00 PM - 5:00 PM 5:00 PM - 6:00 PM	100.0% 56.3%	0 7	Retail
55	Private Permit Parking	22	1:00 PM - 2:00 PM multiple	18.2% 4.5%	18 21	Private
60	Harvest Homeschool Advantage	26	11:00 AM - 12:00 PM 10:00 AM - 11:00 AM	50.0% 38.5%	13 16	Institution
65	Old Town Lofts	108	8:00 AM - 9:00 AM 12:00 PM - 1:00 PM	45.4% 50.0%	59 54	Residential
66	First Interstate Bank	31	10:00 AM - 3:00 PM 9:00 AM - 10:00 AM	100.0% 22.6%	0 24	Retail
67	Desert Fox	20	11:00 AM - 1:00 PM	60.0%	8	Retail

Lot ID	Facility	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
			10:00 AM - 11:00 AM	65.0%	7	
68	Feed Mill	35	10:00 AM - 11:00 AM	20.0%	28	Retail
			12:00 PM - 1:00 PM	31.4%	24	
69	City Hall 1	64	1:00 PM - 4:00 PM	90.6%	6	City
			9:00 AM - 10:00 AM	50.0%	32	
70	City Hall 2	52	5:00 PM - 6:00 PM	63.5%	19	City
			12:00 PM - 1:00 PM	44.2%	29	
71	Point S Tires	23	9:00 AM - 10:00 AM	56.5%	10	Retail
			8:00 AM - 6:00 PM	100.0%	0	
74	Gravel Lot , Possible over park for Bobby's Transmission	42	11:00 AM - 1:00 PM	78.6%	9	Retail
			4:00 PM - 5:00 PM	50.0%	21	
76	Napa Auto Parts	32	9:00 AM - 10:00 AM	78.1%	7	Retail
			2:00 PM - 3:00 PM	50.0%	16	
77	Crossfire Shooting Gear/ACSTC/G8G Insulation/Expressions By Design	124	9:00 AM - 10:00 AM	38.7%	76	Retail
			10:00 AM - 11:00 AM	12.9%	108	
80	Miracle Ear/People Ready/Allstate	41	5:00 PM - 6:00 PM	39.0%	25	Retail
			10:00 AM - 11:00 AM	39.0%	25	
81	Meridian Developmental Services/Communicare Inc/Unity Services	20	2:00 PM - 3:00 PM	70.0%	6	Institution
			8:00 AM - 6:00 PM	20.0%	16	
90	Thrift Store	18	9:00 AM - 10:00 AM	94.4%	1	Retail
			12:00 PM - 1:00 PM	77.8%	4	
92	Idaho Youth Ranch	20	multiple	60.0%	8	Institution
			12:00 PM - 1:00 PM	70.0%	6	
93	Idaho Youth Ranch	20	10:00 AM - 11:00 AM	35.0%	13	Institution
			12:00 PM - 2:00 PM	30.0%	14	
97	West Link AQ	24	10:00 AM - 11:00 AM	58.3%	10	Retail
			8:00 AM - 6:00 PM	0.0%	24	
99	Idaho Paun & Gold/Classi K9	20	10:00 AM - 12:00 PM	60.0%	8	Retail
			12:00 PM - 3:00 PM	60.0%	8	
100	Evergreen Technology	30	1:00 PM - 3:00 PM	73.3%	8	Office
			multiple	46.7%	16	
101	Meridian Automotive	21	9:00 AM & 3:00 PM	90.5%	2	Retail
			10:00 AM - 11:00 AM	71.4%	6	
103	Idaho Baseball Academy	18	multiple	38.9%	11	Institution
			2:00 PM - 3:00 PM	5.6%	17	
105	US Postal Office	76	9:00 AM - 11:00 AM	94.7%	4	Federal
			9:00 AM - 10:00 AM	98.7%	1	
110	The Meridian/1404-1406 First Commercial	71	9:00 AM - 10:00 AM	71.8%	20	Office
			8:00 AM - 9:00 AM	4.2%	68	
111	Authentic You/T -Zers	21	1:00 PM - 2:00 PM	33.3%	14	Retail
			10:00 AM - 11:00 AM	23.8%	16	
112		193	5:00 PM - 6:00 PM	44.6%	107	Retail

Lot ID	Facility	Stalls	Peak Hour	Peak Occupancy	Stalls Available	Use Type
	Rite Aid/Auto Zone/Subway/Johnnys		10:00 AM - 11:00 AM	28.0%	139	
114	Jack In The Box	37	1:00 PM - 2:00 PM 12:00 PM - 1:00 PM	16.2% 13.5%	31 32	Retail
115	Cole Valley Christian	172	9:00 AM - 11:00 AM 9:00 AM - 10:00 AM	99.4% 18.6%	1 140	Institution
118	Chapel Staff Parking	26	9:00 AM - 10:00 AM 8:00 AM - 6:00 PM	80.8% 3.8%	5 25	Institution
119	Borton Lakey Law & Policy	20	9:00 AM & 11:00 AM 8:00 AM - 6:00 PM	40.0% 5.0%	12 19	Office
123	Generations Bldg/Public Parking	34	5:00 PM - 6:00 PM 2:00 PM - 3:00 PM	91.2% 79.4%	3 7	Mixed Use
124	Private Tenant Parking	23	1:00 PM - 2:00 PM multiple	43.5% 13.0%	13 20	Residential
125	Frontier Club	24	4:00 PM - 5:00 PM 5:00 PM - 6:00 PM	58.3% 54.2%	10 11	Retail
126	First Interstate Bank/127 Saloon	20	5:00 PM - 6:00 PM 12:00 PM - 1:00 PM	85.0% 60.0%	3 8	Retail
128	Keller Associates	88	1:00 PM - 2:00 PM 8:00 AM - 10:00 AM	60.2% 6.8%	35 82	Office
133	Meridian Meat & Sausage	19	8:00 AM - 11:00 AM 8:00 AM - 6:00 PM	31.6% 10.5%	13 17	Retail
134	Easy Timeshare Relief	15	8:00 AM - 6:00 PM 8:00 AM - 6:00 PM	0.0% 0.0%	15 15	Office
139	Health Food Store	20	8:00 AM - 6:00 PM 8:00 AM - 6:00 PM	0.0% 0.0%	20 20	Retail
140	Birdie Bird/Minute Man Lock & Security	24	11:00 AM & 1:00 PM 2:00 PM - 3:00 PM	41.7% 37.5%	14 15	Retail
146	Meridian Community Center	23	8:00 AM & 5:00 PM 8:00 AM - 9:00 AM	43.5% 26.1%	13 17	Institution
147	Rideline/VRT	56	10:00 AM - 11:00 AM 1:00 PM - 4:00 PM	89.3% 26.8%	6 41	Office
148	Masonic/Public Parking	33	8:00 AM - 9:00 AM Construction	63.6% -	12 -	Mixed Use
150	Pine Business Center	20	10:00 AM - 11:00 AM 11:00 AM - 1:00 PM	50.0% 15.0%	10 17	Office
159	Meridian Professional Center	18	12:00 PM - 5:00 PM 10:00 AM - 11:00 AM	27.8% 16.7%	13 15	Office
160	Meridian Elementary Parking	51	5:00 PM - 6:00 PM 8:00 AM - 6:00 PM	103.9% 0.0%	-2 51	Institution
162	Boys and Girls Club of ADA County	35	4:00 PM - 6:00 PM multiple	68.6% 22.9%	11 27	Institution

Appendix E: TP #5 - The Parking Experience

9.0 The Parking Experience

9.1 Executive Summary

Overview

In an effort to learn more about the parking and transportation experience of a wide range of Meridian stakeholders, including visitors, residents, employees, and business owners/operators, an online survey was developed and made available in late summer 2023. This memo summarizes the results and key findings.

User Groups

216 individuals responded to the survey, including **32 residents** (15%), **87 Downtown employees** (40%), and **32 business owners/operators** (15%). Several individuals belong to 2 or more of these groups. Additionally, 94 survey respondents visit Downtown, but do not live, work, or own a business Downtown (44%).

Findings and Key Themes

- **There are growing conflicts between the short and medium-term parking needs of customers, the all-day needs of employees, and the all-day/overnight needs of Downtown residents.** While time limits serve as a helpful tool for prioritizing some on-street parking areas for customers, there remain many unrestricted areas in or near Downtown where customers, residents, and employees all compete for limited parking. Some business owners, in particular, were concerned with all-day parking taking up parking that should be prioritized for customers.
- **Many employees are unsure where they should park.** While those with easy access to free off-street parking (61% of downtown employee respondents) report few parking concerns, employees of businesses with limited off-street parking in areas with on-street time restrictions note concerns about where they can safely park. Loading/unloading gear is also a concern for employees of Downtown businesses with on-street time restrictions.
- **More than 75% of visitors noted dining as a key reason for visiting Downtown Meridian, and the evening dining hours were consistently highlighted as a challenging time.** Those familiar with the area state that parking is available at these times. However, visitors less familiar with the Downtown tend to express frustration when they have to circle multiple blocks to find parking.
- **Pedestrian safety and crossing improvements are a key priority.** Downtown employees are particularly familiar with the most challenging crossing locations. There is a general feeling that walking in Downtown is generally a pleasant experience (rated 3.9 out of 5.0). Slowing traffic and improving crossings will make parking more than a block from Downtown destinations easier to feel safe.
- **There is a perception that new development will create significant parking constraints.** Even those who do not feel parking is a major challenge now tend to express concerns that the number of new developments coming online in the coming years will create significant parking pressure.
- **Enforcement improvements are desired.** There is a perception that many time-limited parking areas are poorly enforced, and signage in off-street parking areas is often ignored.

- **Parking during events is commonly perceived to be constrained.** Many respondents who otherwise feel parking availability is adequate still see constraints during events.
- **Wayfinding, signage, and clearly marked shared parking options were highlighted as potential improvements to make better use of available parking areas.** Visitors are often unfamiliar with public parking options and would benefit from improved public parking signage.
- **Improvements are desired for those with mobility limitations.** There is a perception that there are few accessible parking options and inadequate curb ramps, and parking two or more blocks from a destination is a challenge for those who require a walker or wheelchair. 5% of survey respondents indicated that they make use of a disability placard.
- **The size of on-street parking stalls was noted as small, given the number of large trucks.** Many visitors noted that vehicles often extend into the travel lanes, and some drivers feel there is inadequate space to park and safely open their doors.

9.2 Introduction

A. Purpose

As part of the larger Destination Downtown Master Plan Update, the City of Meridian wants to understand its current parking program better. To accomplish this, the Meridian Development Corporation (MDC) and the City are pursuing a series of topic papers focused on specific topics related to parking management.

This Topic Paper is the fifth of six papers and summarizes the findings from an online survey conducted in August and September 2023.

B. Process

RWC developed the initial survey questions with input from MDC and the City to hear from at least four key stakeholder groups: Visitors, Residents, Employees, and Business Owners/Operators. A survey was used in lieu of focus group sessions to hear from a much larger number of individuals.

The survey was open and available for input from August 14th, 2023, through September 21st, 2023⁶¹.

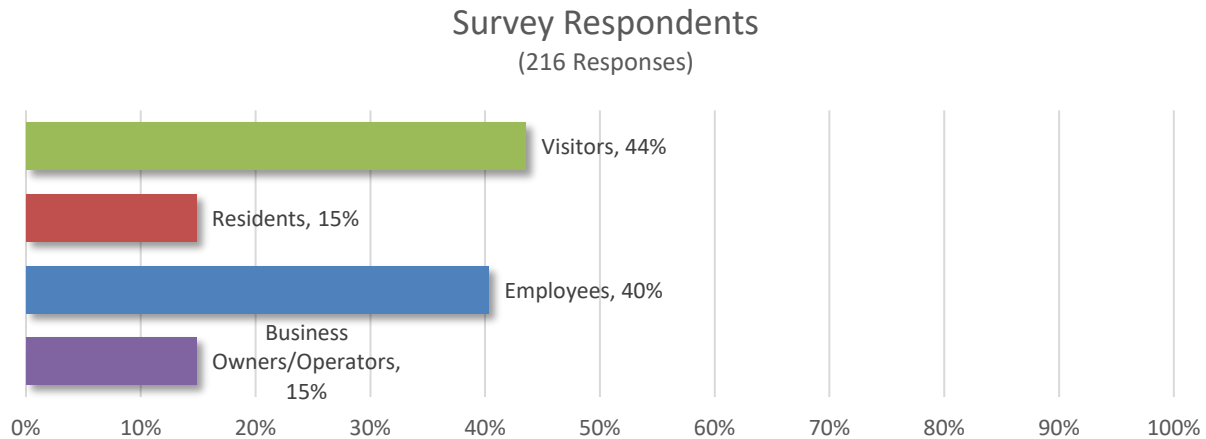
C. User Groups

216 individuals responded to the survey from the following user groups:

- 94 respondents **visit** Downtown Meridian but do not live or work in Downtown (44%)
- 32 respondents **live** in Downtown Meridian (15%)
 - 7 of these residents also work in Downtown
 - 3 of these residents also own/operate a business and work in Downtown
- 87 respondents **work** in Downtown Meridian (40%)
 - 22 of these employees also own or operate a business in Downtown
 - 7 of these employees also live in Downtown

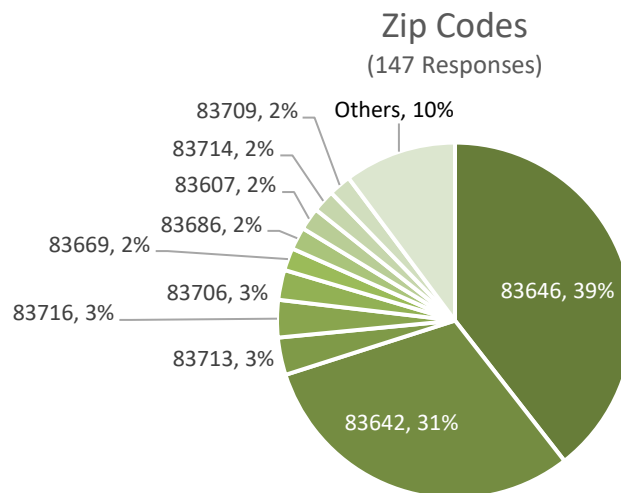
⁶¹ The questions were initially asked via the larger project's MindMixer engagement tool. However, due to the very limited response rate, the survey was re-released via Survey Monkey in order to hear from a much wider audience. Initial responses to the MindMixer are not included in this report, as many responses are likely duplicates.

- 3 of these employees also own or operate businesses in Downtown and live near Downtown.
- 32 respondents **own or operate a business** in Downtown Meridian (15%)
 - 22 of these owners/operators also work in Downtown
 - 3 of these owners/operators also work Downtown and live near Downtown.

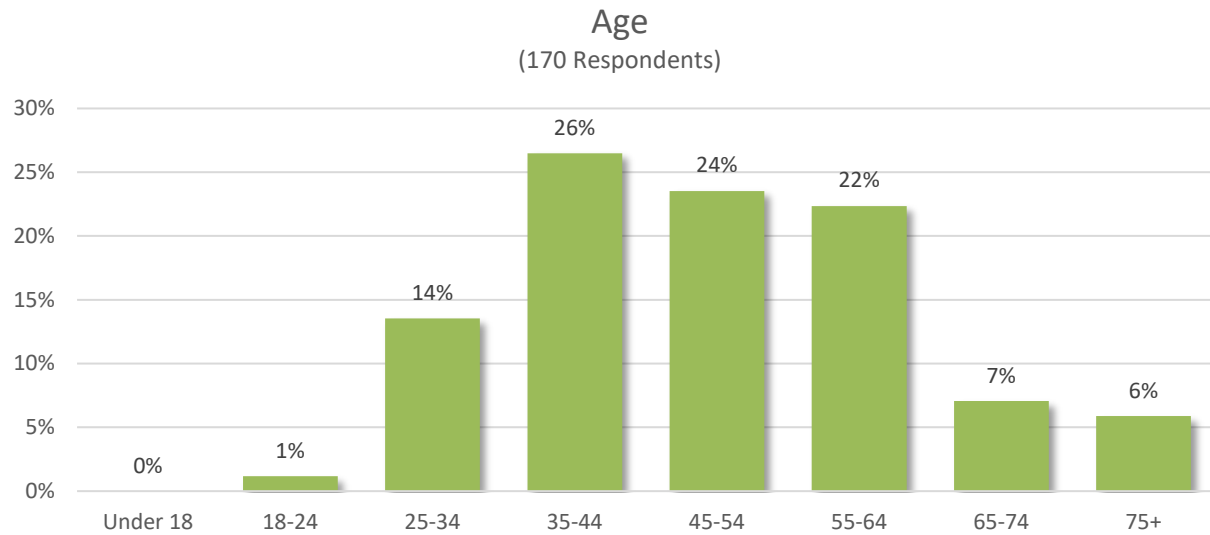


*Results add up to more than 100% due to the number of individuals that are included in multiple categories

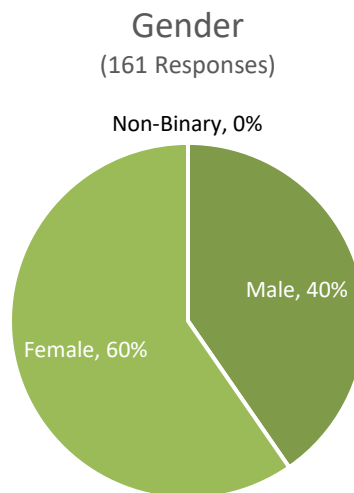
9.3 Demographics



*Others include all with either 1 or 2 respondents



- Median Age Category: **45-54**
- Users of a Disability Placard: **5% of survey respondents**



*All respondents chose one of the 3 categories offered (or chose not to respond) rather than write a description

9.4 Survey Findings

A. Overview

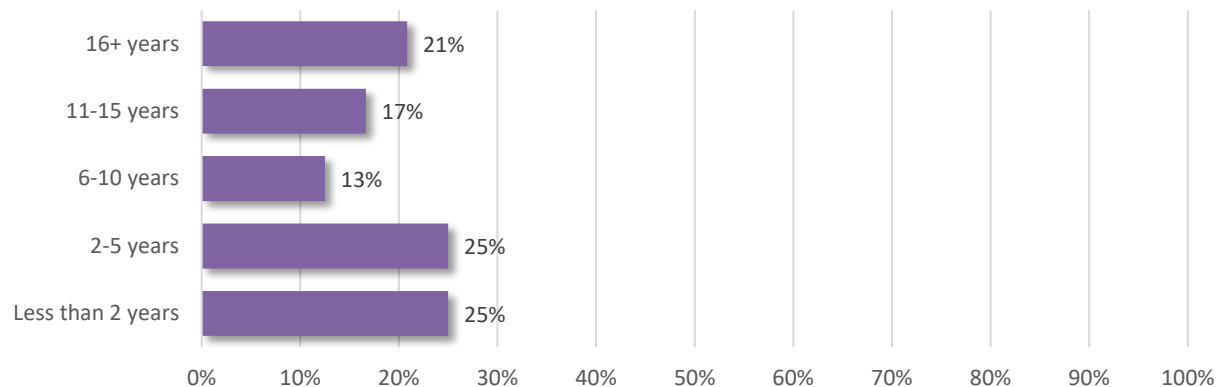
Each of the following sections presents the findings from the questions asked of each User Group. See **Section 3 - Key Themes** for a summary of the overall findings.

B. Business Owners/Operators

Employers offer insights into employee commute habits, TDM programs, as well as concerns they hear from visitors and customers. **32 business owners/operators** responded to the survey. Each chart notes the actual number of people who answered the specific question.

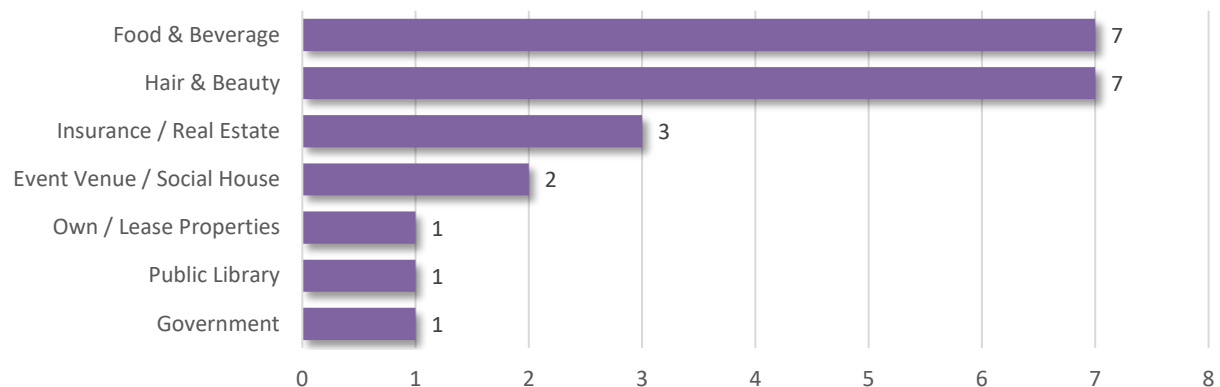
For approximately **How Many Years** have you owned or operated your business?

(24 Responses)



What is your organization's **Primary Business**? What product or service does it provide?

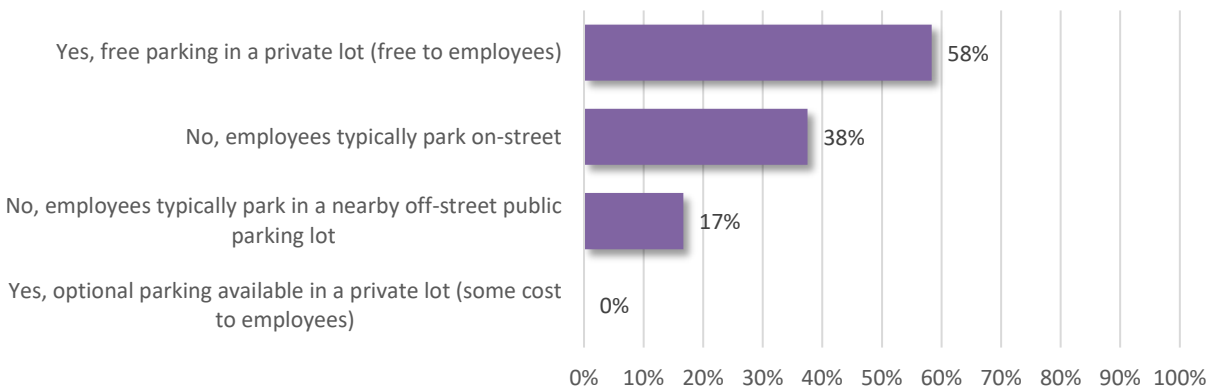
(22 Responses)



- Total employees represented by 21 business responses: **467 total employees**
- Range of business size reported: **1 to 150 employees**
- Median business size: **10 employees**

Does your business/organization provide **Off-Street Parking for Employees?** If not, where do employees typically park?

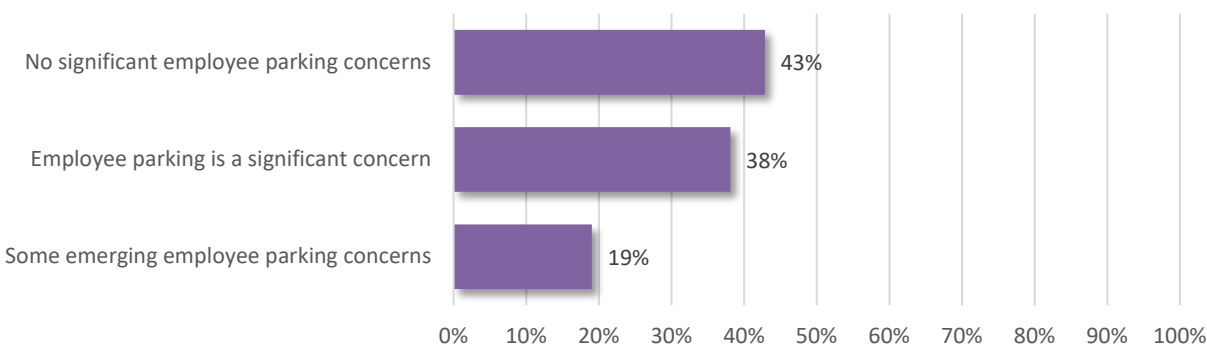
(24 Responses)



**Several respondents noted some clarifications. For example, one respondent indicated that they prefer their employees not to park in their lot to save these spaces for customers. Others indicated that residential parking associated with the Downtown Lofts has limited the amount of parking available for Customers.*

Are your employees generally **Satisfied** with their parking options when driving to work? Are there any key issues you would like to share related to employee parking?

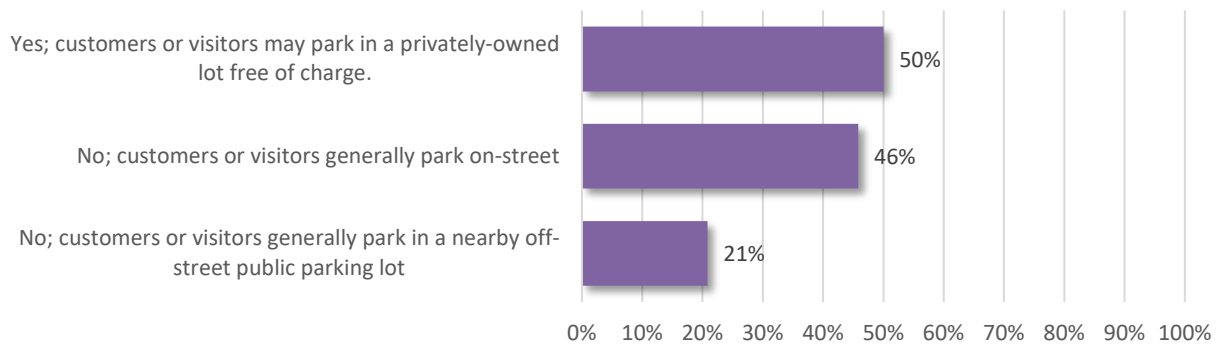
(21 Responses)



**Several respondents noted some comments. For example, several respondents reported the challenges their employees face by having to park several blocks from work (particularly when carrying supplies). Another respondent noted that residents associated with the Downtown Lofts often occupy nearby parking spaces.*

Does your organization provide **Off-Street Parking for Customers** or visitors? If so, what type of parking (Select all that apply).

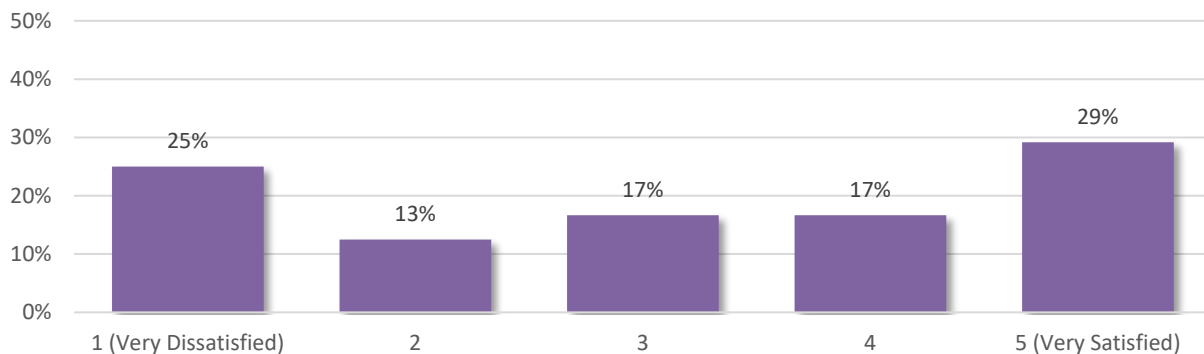
(24 Responses)



**Several respondents noted some clarifications. For example, one respondent indicated that their customers' on-street time limits are too short (2 hours). Another noted that while they have a small parking lot shared with an adjacent business, most customers park on-street.*

On a scale of 1 (very dissatisfied) to 5 (very satisfied), are your customers, visitors, or clients generally **Satisfied** with their parking options when driving?

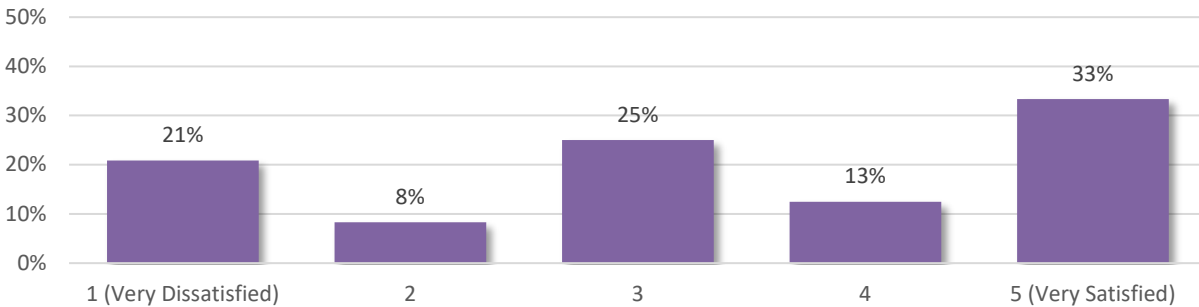
(24 Responses)



- Average Rating: **3.1 out of 5.0**

How **Satisfied** are you with Downtown Meridian as a place to own/operate a business with respect to the available parking and transportation options? (1 = Very Dissatisfied; 5 = Very Satisfied)

(24 Responses)



- Average Rating: **3.3 out of 5.0**

C. General Comments⁶²

- **Not Enough Off-Street Parking**
 - I think businesses should not be allowed to be built if there isn't going to be adequate parking included. It's absolutely ridiculous that they would allow a salon to be built and not allow more [than] 2 spots. I strongly believe that's why other buildings next to us is having a hard time renting them out.
 - There has been so much growth in downtown Meridian but with no extra parking added.
 - We have no options of where to park. And the lofts have 2 open vacant spaces for businesses... where will all [their] clients and customers park? I have been approached by prospective tenants for those spaces and sadly the parking is [their] biggest concern as well. It's so beautiful down here. Parking needs to be more accommodating for businesses [trying] to earn a living.
 - The issues have not changed much over the years. We continue to develop and grow which is good. But we don't keep up with traffic and parking needs that result from that growth. It's a little better than it used to be. But there is still a long [way] to go.
- **Too Much Long-Term Parking On-Street**
 - The loft and apartment parking lot is half empty because not all tenants want to pay for parking, so they take all the extra parking on Idaho Ave. Some of the vehicles sit there for days at a time.
 - We need more parking/allotted business parking and those in apartments should not be allowed to take business parking.
 - The loft and apartment tenants take up most of the street parking in front of my business. This leaves little to no parking for customers. As tenants of the salon, we are not even able to rent a parking spot in the loft parking lot. So there are just empty spaces.

⁶² It should be noted that General Comments are presented "as written" by the respondent. Minor corrections are shown in [brackets].

- **Additional 3 or 4 Hour On-Street Parking Needed**
 - The two-hour street parking limits during business hours are difficult for our patrons who spend more time than that in our library. They have to go move their cars every two hours to avoid getting parking tickets.
 - Parking directly associated with a store front should be limited to two hours. Parking NOT directly connected to store fronts should be 4 hours or free depending on location.
 - More public parking areas free of charge with time limits of 2-3 hours.
- **No Issues / Parking Capacity Adequate**
 - There appears to be plenty of public parking available within the downtown core.
 - Until parking reaches a point that current public spaces aren't sufficient I think we should keep current parking regulations in place. No need to change until the next large residential project comes on line. However we should have a plan for when/ if these new projects come to fruition.
- **General Difficulty Finding Parking**
 - Parking is pretty tough sometimes, the street is frequently pretty full. I suppose that means that people are coming Downtown, so that is good. More options will be good.
- **Sidewalk Maintenance**
 - City sidewalks need to be addressed. They're all lifting and uneven and are a major tripping hazard. Street parking is good on [Main Street]. Carlton is a joke, especially since the city approved that new duplex. Too many residential houses parking multiple vehicles on the street leaving no room to drive East or West on Carlton.

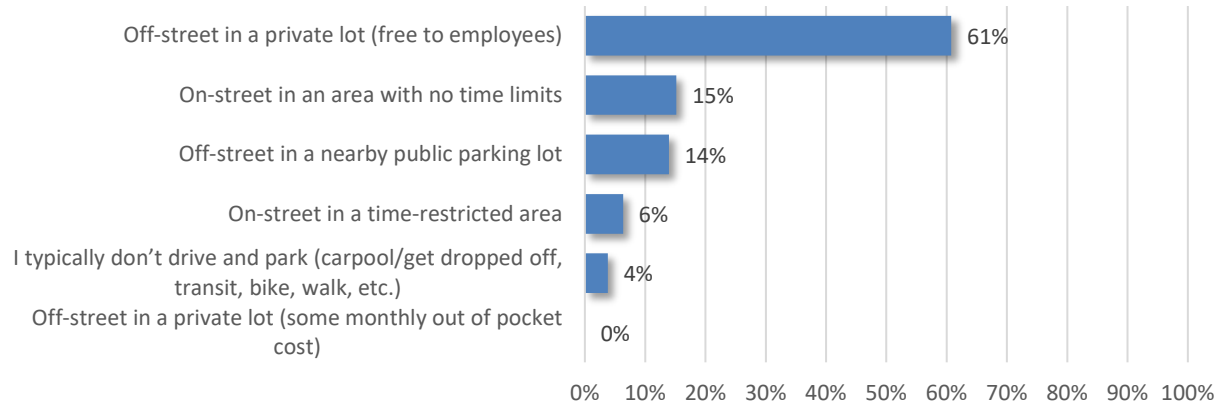
9.5 Employees

Input from employees included information about where they park, their key access concerns, and general satisfaction with the transportation options when working Downtown. **87 employees** responded to the survey.

Approximately **44%** of the employees who responded to the survey (38 individuals) work at City Hall in some capacity (33 E. Broadway Ave.). Additionally, approximately **23%** of the employees who responded to the survey (20 individuals) work at either Valley Regional Transit (VRT) or the Community Planning Association of Southwest Idaho (COMPASS) at 700 NE 2nd Street.

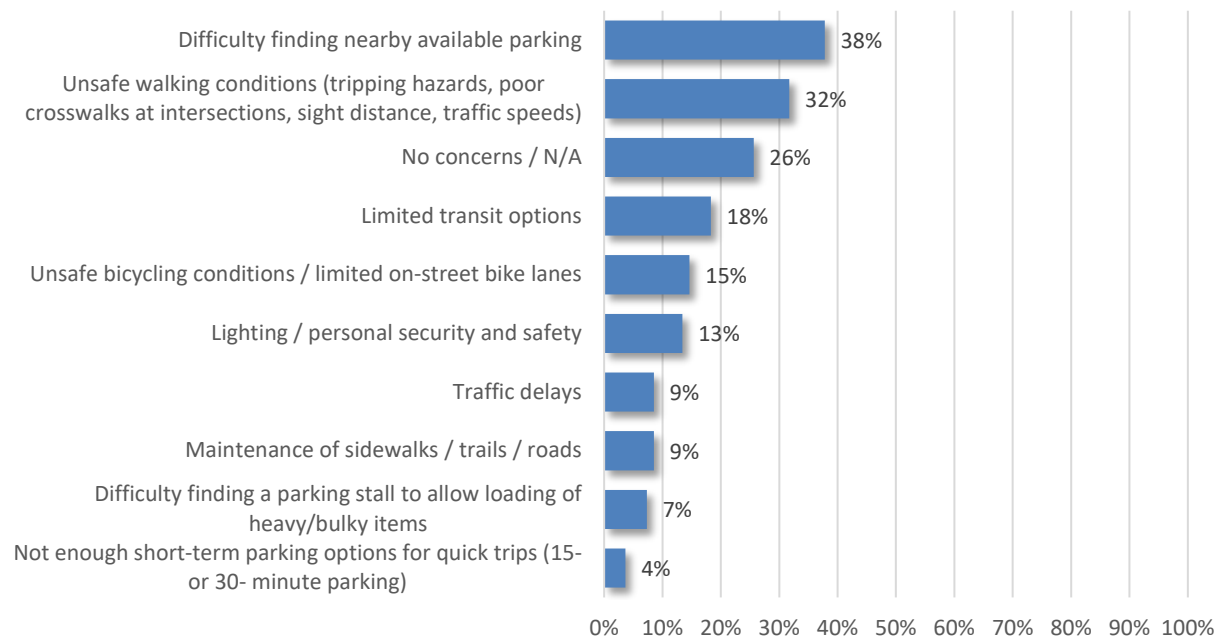
Where do you typically **Park** when you drive to work? (select the option that represents your most frequent parking location)

(79 Responses)



Do you have any **Concerns** about accessing your place of work? (Select up to 3 top concerns, if applicable)

(82 Responses)



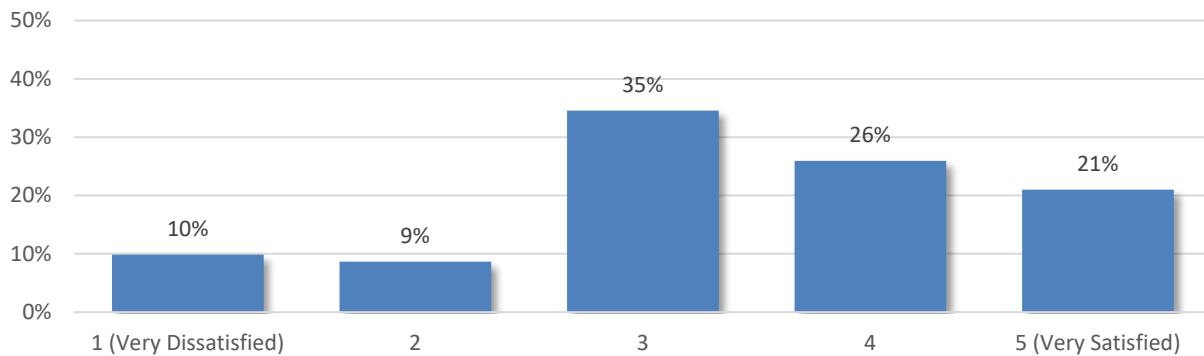
A. Other Concerns Noted

- **Pedestrian Safety / Lighting**
 - The intersection at Meridian and Broadway feels unsafe. Cars are not patient with crossing pedestrians. The crossing light does not keep them at bay for long.

- Everyone has multiple stories about almost getting hit in the crosswalk from the west lot to City Hall.
- Lights need to be installed at the intersection of Broadway and Meridian for vehicles going East and West on Broadway so that when the crosswalk light is activated to stop [vehicles] on Meridian, drivers on Broadway know why traffic is stopped (for a pedestrian, not for them to gun it on to Meridian) and to avoid hitting pedestrians. Too many close calls.
- Crossing Meridian Rd can take a while for the pedestrian light to change, and this week alone, I've nearly been hit by a car illegally running the red light three times.
- Also, we shouldn't have to use flags to cross the street. When I was stationed in Germany, you simply put your arm out in front of you to cross the street where there was no traffic control. A simple and easy solution for blind people as well as children.
- Lighting especially in the middle of winter. I come to work between 6:30-7:00 am.
- Walking across Meridian Street can be challenging as not all drivers respect the HAWK signal.
- **Parking Capacity / Parking Availability**
 - There's not enough parking for the size of the business I work at. There should be enough parking for clients [] otherwise how do you expect us to run a business? Parking is huge for salons. If the parking is awful we start to [lose] clients.
 - I often go to The Original Sunrise Cafe or Eight Thirty Common or El Tenampa but the parking is a tough stretch and traffic is a bit too hot to bring little kids.
 - Part of our lot is open to the public, but they do not always park in the "public" space. There is also not enough designated parking for employees of VRT or COMPASS.
 - Parking is becoming more limited the last 6 years.
- **Long-Term Parking Needs**
 - Not enough long term parking available, I have to move my car every two hours.
 - At this point, there is a parking lot directly behind our building for staff to park. If that parking lot goes away, I would definitely have concerns about where to park.
- **Maintenance**
 - Sidewalks need [to be] addressed bad.
- **Wheelchair Accessibility**
 - Not enough wheelchair accessible spaces.
- **Traffic Blockages**
 - At times service vehicles, and/or delivery trucks ([]) will block all traffic going into the parking lot.

How **Satisfied** are you with Downtown Meridian as a place to work with respect to the available parking and transportation options?

(81 Responses)



- Average Rating: **3.4 out of 5.0**

B. General Comments

- **Pedestrian Safety Improvements Needed**
 - Speed limit is not enforced. Walking even sometimes from the parking lot I use a block away I've had some close calls in the crosswalks. I watch a major intersection by my office window daily... it's nerve racking trying to watch people use the crosswalks to get across the street due to the speed of vehicles and the attention of drivers is lacking in realizing there are people trying to get to downtown businesses, or school...or whatever. Sidewalks are constantly littered with cigarettes, and beer bottles and cans, puke...more so with the amount of new bars in the area. Such a welcoming environment for clients/customers in the area.
 - Crosswalk at Broadway and Meridian Rd. takes way too long to allow pedestrians to cross. Additionally, this crosswalk is unsafe as motorists speed down Meridian Rd. and sometimes ignore the crosswalk lights.
 - A lot of traffic on Meridian Road due to the freeway access. The crosswalk across Meridian Road to City Hall is somewhat unsafe due to vehicles that are not considerate to pedestrians crossing the street.
 - See comment about intersection of Meridian and Broadway and the crosswalk from the City employee parking lot.
 - The pedestrian, a hawk light at Broadway and Meridian Road is dangerous. There needs to be traffic stops on all four corners.
 - Fix the Meridian Rd crosswalk between City Hall and the employee lot.
 - Please consider adding one or two ped crossings along Main St north of Pine and on Pine east of 3rd St. Perhaps flashing beacons or even a HAWK. I know HAWKS will cause traffic to stop but would be safer. Rarely do the drivers yield to peds (I walk both of these roads daily during the week).
- **More Long-Term Parking**
 - There needs to be more parking for workers and/or Clients.

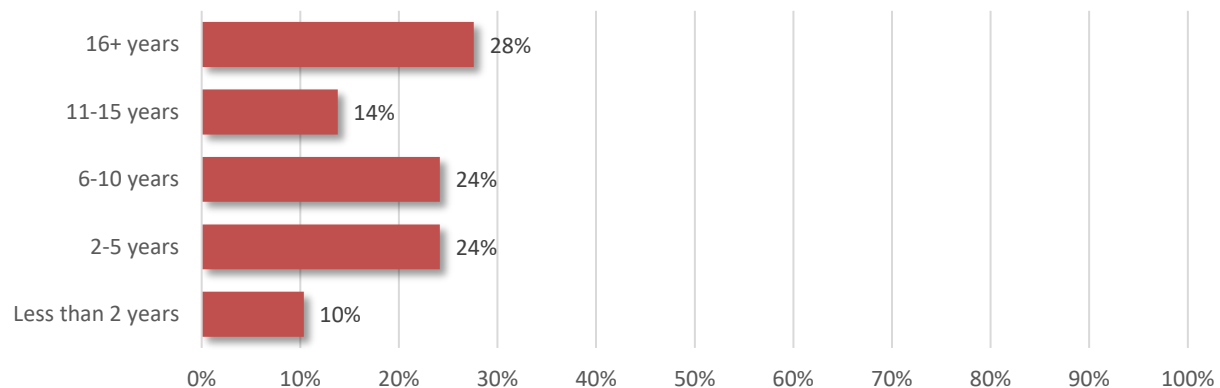
- Employees need spots and businesses need lots.
- There is not enough safe parking for City employees. I don't consider parking that requires us to cross Meridian Road to be safe.
- Not enough parking options and safe walking distance.
- Our parking lot is open to the public and is often full. Most surrounding on street parking is limited to 2 hours. Makes it difficult to find a parking spot while at work.
- Need additional unrestricted timed parking (or housing!) for employees.
- **Parking Supply is Adequate (Currently)**
 - There is always a lot of parking. Some people just don't like to walk a bit.
 - Parking is not a problem, as long as you are willing to walk a block or two.
 - Currently not experiencing many challenges regarding parking, but new development threatens to limit the spaces provided in the lot adjacent to my office. Would like to make sure that we continue to have a place to park for free while at the workplace.
 - I haven't seen a parking issue related to my work other than crossing Meridian Road.
 - Again, we have a parking lot for employee use. I have heard it will go away once the "cement monstrosity" is complete. I do not like to park in parking garages because I feel they are unsafe places for females who are alone. I would have to look for alternative parking options.
- **Additional Public Transit**
 - More ways to use public transport.
 - Too limited transit options.
 - We need transit from Boise to Meridian Downtown that operates earlier in the day (and later in the afternoon) than currently provided.
 - More transit!
- **More Parking Supply Needed**
 - We need a parking garage please.
 - There is not enough public parking to visit the businesses along main street and down the side roads. I chose not to go to them because there is never parking.
 - If the City of Meridian parking lot is full, then it is difficult to find parking along a street. I have heard others complain of very limited parking in down town Meridian.
- **Traffic and Traffic Safety Improvements**
 - Better signals for the parking lot directly west of City Hall. A fully operational stoplights would be great. This would be Broadway Ave and Meridian Road.
 - The railroad grade when traveling south on Main Street has lifted about 1.5" and traffic almost comes to a stop to cross, which sometimes backs up traffic to the light at Broadway
 - At times, the train runs through at noon (right when people are leaving for lunch). Providing consistent schedule would be helpful.
- **Bicycle Improvements**
 - I would love to bike to work, but there are limited bike lanes and paths.
 - More bike lane maintenance (sweeping, etc.) [...].
- **Additional Enforcement of Regulations**
 - Lots of people park in the City parking lot that is designated for employees only. The lot is not being checked enough for violators.
 - Why [do] Meridian city employees park on the street instead of [their] parking lots?
- **Additional 3 or 4 Hour On-Street Parking**
 - As a hairstylist, I have clients that take longer than 2 hours so only having 2 hour parking in front is difficult, but also the tenants from Old Town Lofts are taking up our parking out

- front if they don't want to pay for their own private space. Since we are technically leasing a space from the Lofts, we should at least be given the option to rent a space but are not. I park 2 blocks away which is fine but it is unfortunate that my clients are not able to find easy parking right out front of our establishment.
- **Signage Wayfinding Improvements**
 - Public parking is provided behind the new Keller building on Main Street, however there is no signage or identification letting motorists know that parking is available at this location. Clearer signage of public parking is needed.
 - **Need Additional Wheelchair Accessible Spaces**
 - Not enough wheelchair accessible spaces.
 - **Address Evening Parking Demands**
 - On Broadway east of Main Street, make the south side parking, but during the hours of 2100-0300 make restricted for Ride sharing Uber etc.
 - **Consider Paid Parking**
 - I see parking demand increasing. I am grateful for the enforcement. I believe now is the time for paid parking.
 - **Love Meridian!**
 - I love downtown Meridian and it seems to have grown at a pace that is lagging behind, but slow is good and nobody could have predicted the precipitous growth of our awesome city. I think probably a bit better than some around us.

9.6 Residents

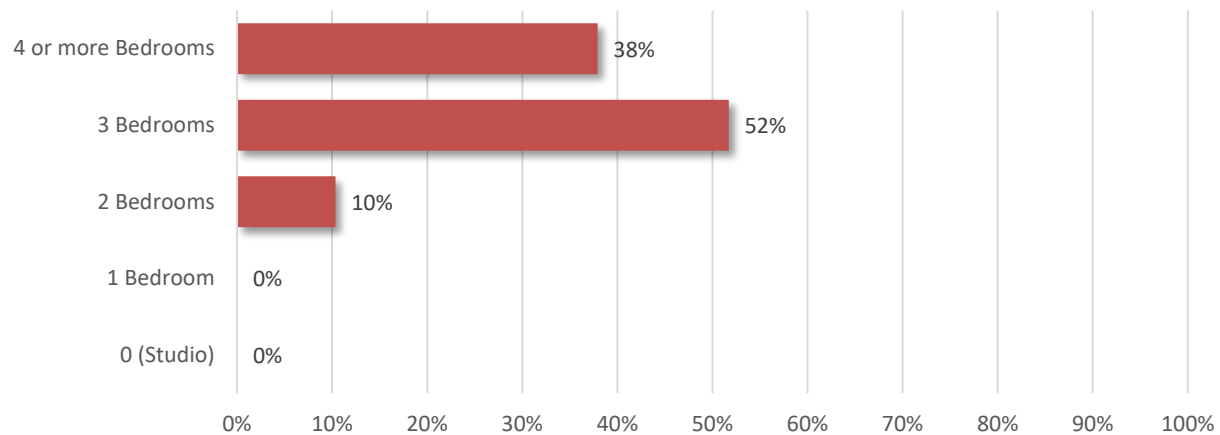
Survey questions for residents focused on vehicle ownership, where residents (and their guests) park their vehicles, and levels of satisfaction with parking and transportation options. **32 residents** responded to the survey. Notably, it is likely that all residents who responded to the survey are residents of single-family homes; all residents indicated that they “typically” park in a personal driveway or garage, suggesting no responses by residents of the Downtown Lofts.

For approximately **How Many Years** have you lived in or near
Downtown Meridian?
(29 Responses)



How many **Bedrooms** are in your residence?

(29 Responses)

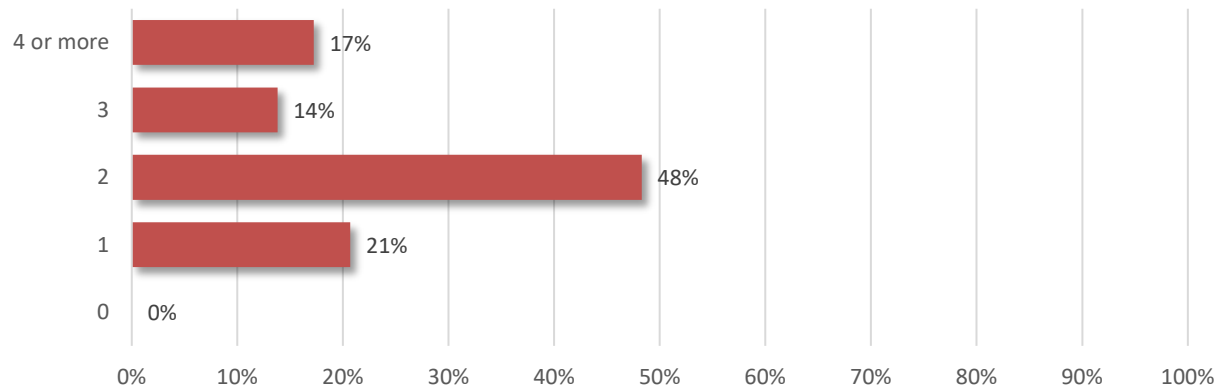


Averages (Approximate)

- Total Reported Housing Units: **29 Units**
- Total Reported Bedrooms (Approximate): **95 Bedrooms**
- Average Bedrooms per Unit (Approximate): **3.3 Bedrooms per Unit**

How many **Vehicles** do you and your family/housemates own or lease?

(29 Responses)

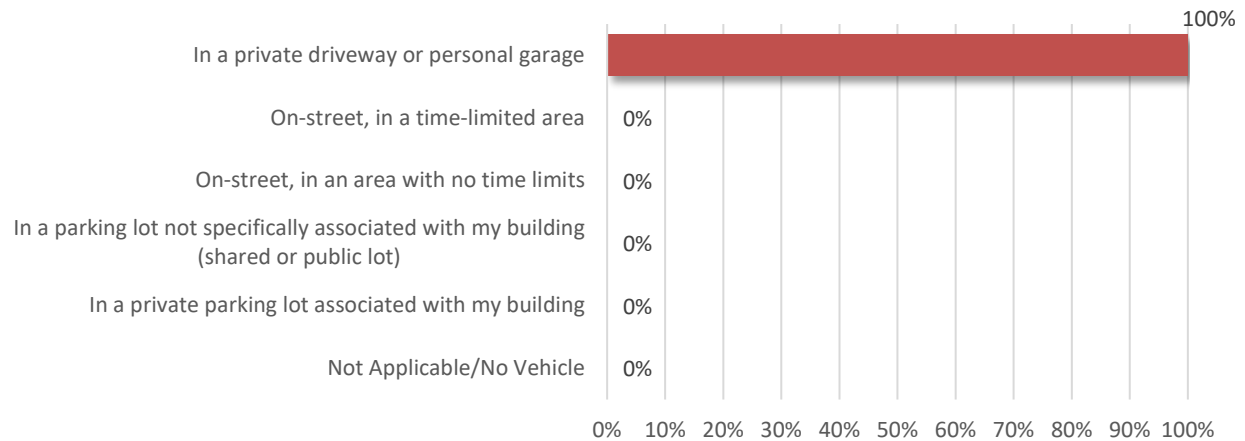


Averages (Approximate)

- Total Reported Vehicles (Approximate): **66 Vehicles**
- Total Reported Vehicles per Unit (Approximate): **2.3 Vehicles per Unit**
- Total Reported Vehicles per Bedroom (Approximate): **0.7 Vehicles per Bedroom**

Where do you typically **Park** overnight? (If you own more than one vehicle, think of the vehicle used most often)

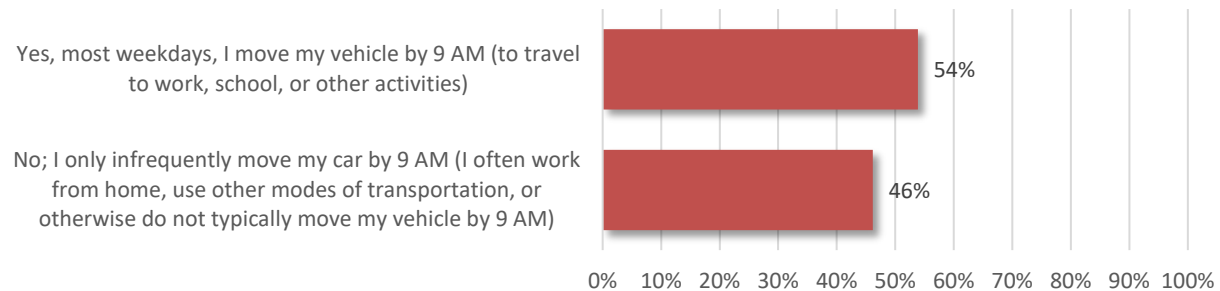
(29 Responses)



Note: Some residents also noted that they park on-street as well

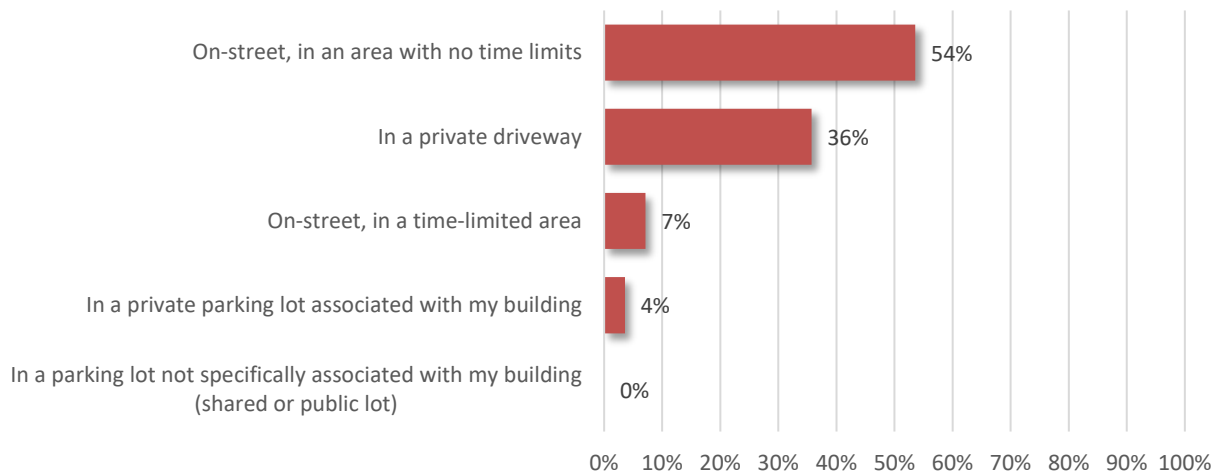
On weekdays, thinking of the vehicle you use most often (if applicable), do you typically **Move Your Vehicle** by 9 AM?

(26 Responses - Excluding 2 N/A Responses)



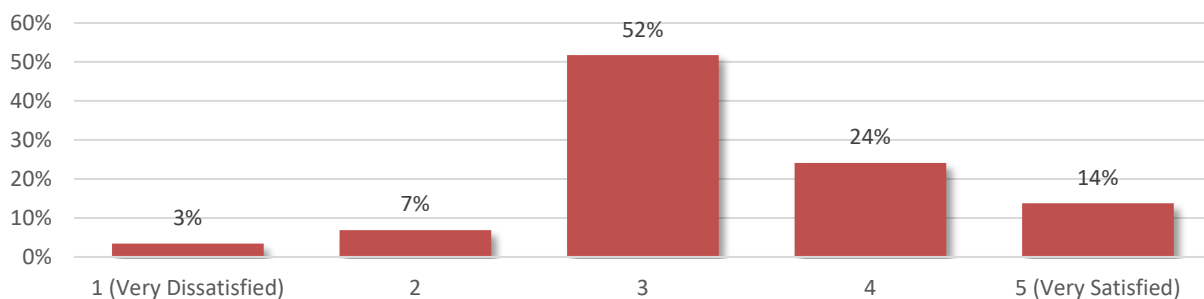
Where do your **Guests** typically park when visiting you at home?

(28 Responses - Excluding 1 N/A)



How **Satisfied** are you with Downtown Meridian as a place to live with respect to the available parking and transportation options? (1 = Very Dissatisfied; 5 = Very Satisfied)

(29 Responses)



- Average Rating: **3.4 out of 5.0**

C. General Comments

- **Parking Is Constrained During Events**
 - It's only hard to find parking during events.
 - Blocking my driveway when there's parades.
- **Limited/Poor Accessible Parking Options**
 - I use a walker or mobility scooter. Meridian and the valley have some of the saddest handicap parking ever. Extremely high curbs, minimal ADA parking spots, spots not close to the ramped access (assuming everyone that needs a ramp has a wheelchair), unenforced people without handicap permits parking in the handicap spots, including owners and employees of the business, and so so many challenges. I find downtown Detroit has more accessible parking than Meridian and Boise. Poor snow and ice removal in the handicap parking areas is terrible. Useless. I become homebound in bad winter weather.

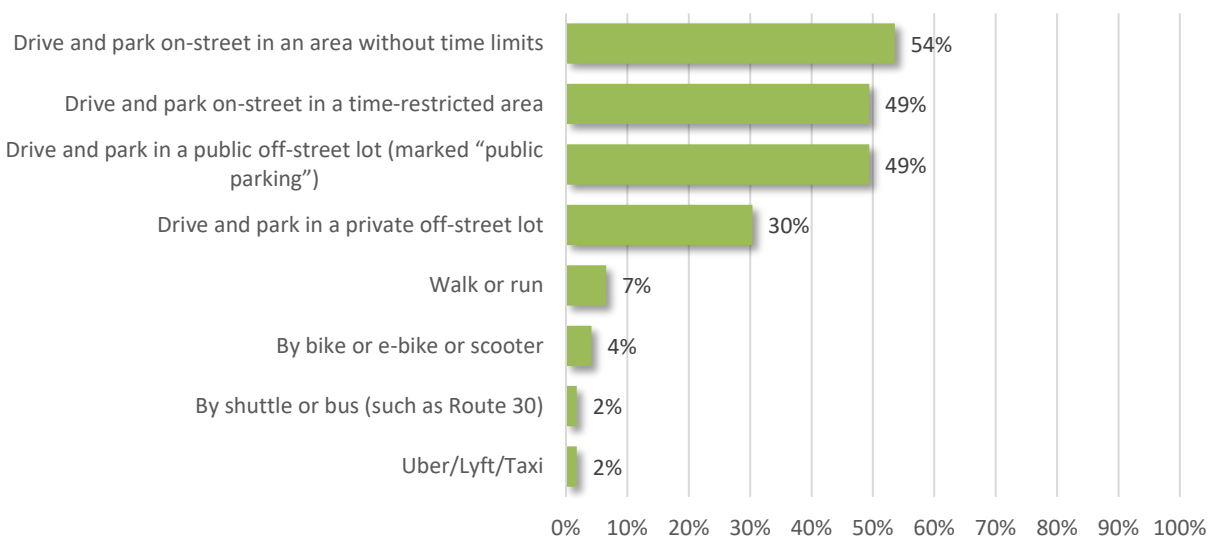
- Not enough wheelchair accessible spaces.
- **Frequent Spillover from Commercial Areas**
 - Our street off of Carlton and Main is clogged frequently due to business patron parking on the street. It makes it difficult to back out of the driveway without worry of backing into a vehicle when directly parked behind us.
- **Concerned Additional Development Will Create Parking Challenges**
 - As you build more apartments with not enough parking close by areas will begin to be affected. We don't have really good public transportation so we will always have vehicles.
- **Need More Shared Parking Options**
 - It would be nice if we could use business/government parking areas/spots on the weekend. Especially for Saturday market.
- **Not Enough Parking Availability in Downtown**
 - I don't come downtown much due to the lack of available parking.

9.7 All Respondents

All survey respondents, regardless of whether they answered any of the questions above, were asked about their experience when **visiting** downtown Meridian. All 216 survey respondents were asked the following questions, of which **94 respondents** would exclusively be considered visitors (i.e., not residents, Downtown employees, or business owners/operators).

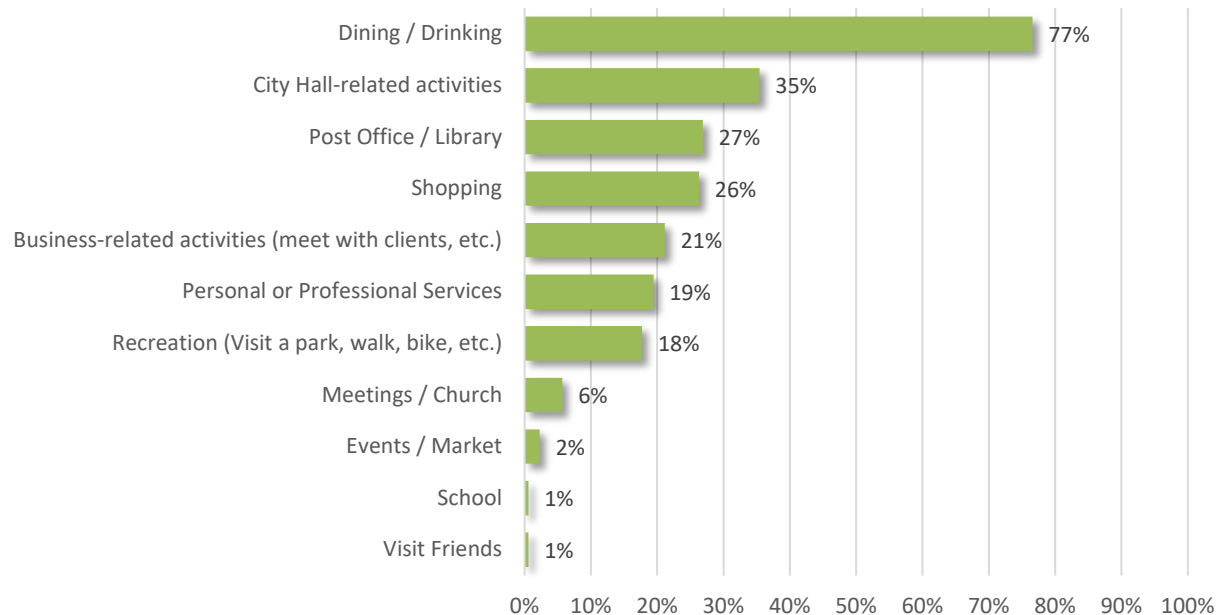
Thinking of times when you visit Downtown Meridian, how do you **Typically Travel** to the area? Select up to 3 of the most typical options.

(168 Responses - Excluding 15 N/A)



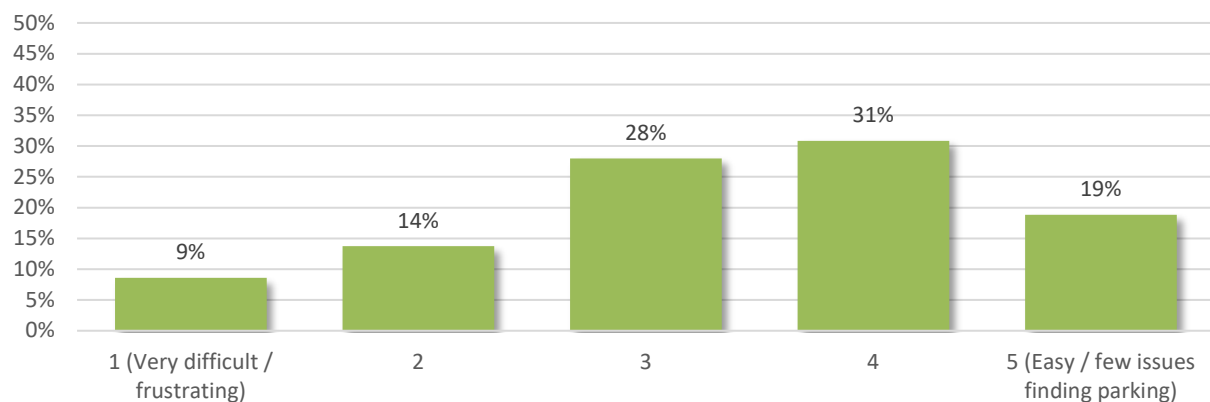
What are the **Primary Reasons** you typically visit Downtown Meridian? Select up to 3 of the most common reasons.

(175 Responses - Excluding 8 N/A)



Typically, on a scale of 1 to 5, how would you rate the **Parking Experience** in Downtown Meridian?

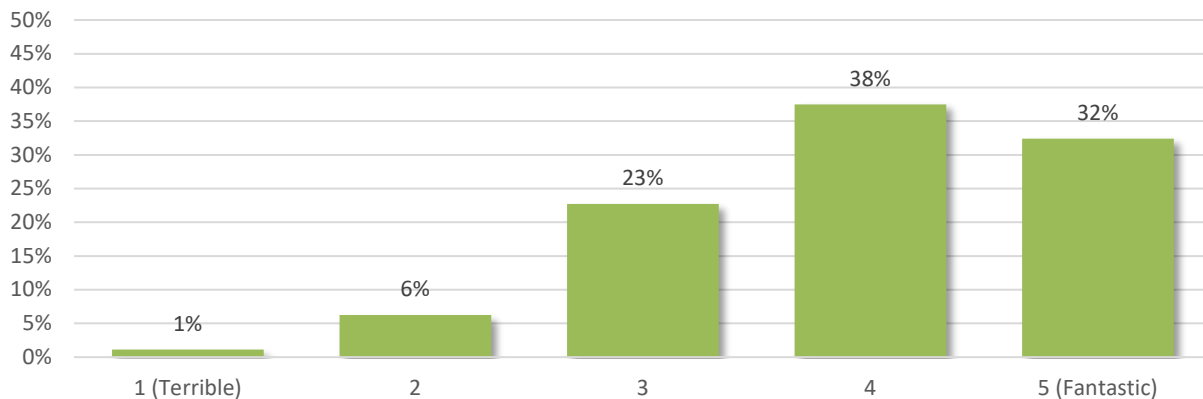
(175 Responses - Excluding 8 N/A)



- Average Rating: **3.4 out of 5.0**

Typically, on a scale of 1 to 5, how would you rate the Experience of Walking in Downtown Meridian?

(176 Responses - Excluding 7 N/A)



- Average Rating: **3.9 out of 5.0**

A. General Comments

- **Additional Parking Supply Needed**
 - Need a parking garage for city hall.
 - More public parking closer to all areas of downtown Meridian.
 - More public parking areas not on a street.
 - If there was a parking garage centrally located in downtown Meridian we would feel more comfortable making it a destination. As of now we actively avoid spending leisure time Downtown and only venture in for services like post office & city hall. There aren't that many restaurants or bars to choose from in the first place, so it feels stressful instead of enjoyable - like everyone is fighting for both the same handful of tables & parking places. Also we do not like having to parallel park if can be helped, so that plays into our decision as well. We enjoy downtown atmospheres but for example if going to Boise we will park in a garage to avoid parallel street parking. We choose the village often for its atmosphere and avoid the street parking there too - since they have an expansive parking lot.
 - I feel that the downtown area could benefit from having more public parking lots.
 - There is not enough parking.
 - There isn't enough parking.
 - A parking garage would be great!
 - More public parking.
 - More parking needs to be provided, in order to make locating in Downtown attractive to desirable tenants -- those attractive to general population, not just their few clients.
 - There needs to be more parking.
 - The post office parking lot should be for post office customers only. The school next door takes up most of the spaces.
 - More public parking.
 - [...] Additional off street parking would be ideal.
 - There just are not enough places to park in general.

- More parking or a parking structure.
- Need more public parking.
- There needs to be a parking garage.
- More parking.
- Not enough parking areas.
- There needs to be more parking. I go to Meridian United Methodist Church, so we use the Mason's Lodge parking, but there's not enough space for everyone. Street parking fills up quickly as well.
- Not enough parking for the growth of Downtown. Add a parking structure and downtown commerce will flourish. Downtown has improved greatly but it has the potential to be amazing.
- It is hard when the buildings are already there and parking established, but might be nice to have more free parking lots.
- I would like to think a public parking garage would help and free up parking in front of my business for my customers.
- Public parking garage. The city ok's all the high-rise development then two years later ask for a parking survey. Sound like the city put the cart before the horse.

- **Pedestrian / Safety / Lighting Improvements**
 - [...] it is not very walkable/bikeable.
 - Tripping hazards on Idaho, Broadway.
 - Block off Pine, Idaho and Broadway east of Main Street to foot traffic only Thursday through Sunday. Bar traffic is picking up and foot traffic is dangerous.
 - Slower traffic would be great, and it's fairly pedestrian friendly, and I hope to keep everything as pedestrian friendly as possible.
 - [...] more lighting to accommodate walking further away as needed.
 - Safety.
 - It might be a good idea to close down a portion of Main St. to pedestrian traffic only.
 - Better Lighting.
 - Main Street traffic could be a bit tamer.
 - Wider sidewalks along Main Street would be nice.
 - Cross walks without HAWK lights.
- **On-Street Parking is Difficult to Find**
 - Close-in parking is scarce! Seniors have difficulty getting from a remote space to stores or restaurants.
 - Feels like there's just not enough spots readily available to go out to dinner & park close. The stress of circling for a spot, or not going past our allotted parking space time limit, is enough to put us off to even [try]. We have a special needs child (but do not qualify for disabled plates) as well as some adult health/mobility issues of our own - we can't always hike it based on parking down & around a few blocks. This leads us to choose establishments outside of downtown Meridian with reliable lots or parking garages.
 - [] On popular dining hours parking is impossible which drives people to choose to not visit downtown restaurants.
 - Need a designated area for customers to park and walk to restaurants or shops.
 - Limited parking.
 - With the increase of dining options in Downtown Meridian, parking is becoming more difficult during peak times.
 - Limited availability.

- There is no parking in downtown Meridian.
- Not enough spaces close to businesses.
- **Additional Development Will Create Parking Challenges**
 - I'm concerned about the future of the apartment developments, so we need to be prepared for much more need for parking.
 - I was concerned with the new apartment homes that would diminish public parking.
 - As Meridian grows we need more public parking.
 - I worry that with the completion of more residential multi-story buildings, parking will be impacted because it seems limited.
 - Meet growing/long term needs.
 - Everything is operating well now, but future congestion needs to be planned for.
 - Make sure that we adjust parking needs going forward but that they remain free to the public.
- **Parking Stalls / Lanes Too Small**
 - Small spaces. I had to literally squeeze myself out of my car on my last visit.
 - The planters in the middle look nice and slow traffic but also makes it difficult to park.
 - Streets are too narrow for parking and Main and Meridian should not have parking. Finally, rush hours am/pm frustrating with traffic density.
 - Parking stalls are very small and those with larger vehicles have a difficult time exiting and entering their vehicles as the doors are not able to fully open when parked next to another vehicle.
 - Width of the roads with cars parked on both sides is extremely tight.
 - People who don't "park within the lines" bother me.
 - Big pickups parked all along the businesses on 1st and E. Idaho cause vehicles driving towards Main St to actually have to drive in the center of the road. They stick to far out into Idaho Ave.
- **Parking Supply is Generally Adequate**
 - Parking is more available in the evenings and on the weekends.
 - [...] I normally don't have any problems after work hours. I may have to walk a block or two, but I am also abled bodied and am able to park far away without any problems.
 - Overall parking is available and close to where I want to be. [...]
 - Downtown is walkable and easy to find parking within a few blocks of the destination.
 - I only travel to downtown Meridian for work and my parking is in a private lot and free.
 - It's pretty easy to park downtown NOW during the day but that's largely because there aren't many people competing for spaces. The exception is the post office, which is usually jammed with cars I suspect are not there on PO business. We avoid the PO except when absolutely necessary. [...]
- **Need More Long-Term Parking Options**
 - Needs more parking for employees on Idaho Ave. loft residents need to have restrictions for only overnight parking and not during business hours...
 - More designated parking maybe for those who work in the area and leaving other parking for clients/customers. I think we may have available parking for clients/customers it's just not utilized properly? When there was building/construction going on it gets worse due to them using the available on street parking or blocking off of these.
 - [...] the employee parking for the City of Meridian can be limited off-street, and the lot across Meridian Road makes it dangerous for employees to have to cross a busy 5 lane street.

- I feel like parking is bad during business hours.
- City needs to build a parking garage for city employees [...]
- **Address Evening Parking Needs / Challenges**
 - Weekends it becomes very congested in the evenings with all the bars having many patrons.
 - With more and more bars in the area there needs to be consideration for overnight parking without punishment, towing, ticketing. The easier we make this for those drinking, the fewer drunk drivers.
 - We only visit during the day and for an early dinner so we don't have to deal with the parking and bar crowd.
 - We rarely go DT at night unless to one of the restaurants. The ones without dedicated parking spaces can be tricky (Epi's, Vintage 61, etc.)
 - During the downtown bar closure there is no safe spot for Uber pick up. Recommend closure on Broadway west of Main on the south side.
- **Concerns with Stalled Construction**
 - The unfinished parking structure that is slowly becoming an eyesore needs improvement. perhaps limiting off street parking for residences might help. I have a neighbor who has multiple non running eyesore vehicles parked on the street at all times unless there is road construction (when they are towed into the yard).
 - Finish the first parking garage, an eye sore right now.
 - [...] long construction times for projects that should be faster, and the Union 93 blight.
 - Noticing construction is at a standstill across from where I work, so no sidewalks done on that side of the street. Why hasn't there been any construction for almost a year between 2nd and 3rd streets on Broadway?
- **Additional Enforcement**
 - More enforcement of illegal parking.
 - Two hour time limits not enforced...if it's raining, cold, or other unfair weather don't worry about getting a ticket! Kind of a joke.
 - People staying in on-street spots longer than the time permitted.
 - More parking options and enforcement of timed parking limits.
- **Better Signage / Wayfinding**
 - More signs directing to public parking lots.
 - Better signage for businesses to indicate where their parking is and signage for street parking.
 - Better signage to direct people to free public parking.
- **Need Paid Parking**
 - We need meters in Downtown to prevent people from camping out in front of businesses.
 - [...] Public, metered parking and residential permit parking program.
 - Paid parking will help the city with infrastructure projects and the maintenance of existing infrastructure.
- **Opposed to Paid Parking**
 - Don't want paid parking. Annoying and less enjoyable experience. I will avoid the areas because of that.
 - The paid parking lot near the Masonic Temple is ridiculous. It doesn't get used. I will park farther away in order to not pay to park. If more parking becomes pay parking I will not frequent downtown Meridian.
 - Parallel parking is difficult but not excited about the idea of paid parking.

- **Additional 3 to 4 Hour Parking Options**
 - I think the on-street parking immediately adjacent to City Hall seems to be rarely utilized. I think the 1 hour and 2 hour parking spaces should be extended to 3 hour or maybe 4 hour parking.
 - [...] Longer time restrictions would be good. Three hour parking stalls by City Hall would be good. Also, stop enforcement at 5 p.m.
- **Parking Is Challenging During Events**
 - We need more places to park when an event is popular there is nowhere to park.
 - An extra parking lot would be great. On event days it gets difficult to find parking but other [than] that not [too] bad.
- **Need More Sharing of Existing Parking**
 - There are parking structures that are employee only and could be used on the weekends for farmers markets and such.
 - Parking demand is growing, the city should get ahead of the curve by leveraging transportation demand management zoning language to incentivize the public and private sectors to work together on solutions for Meridian residents and downtown employees.[...] The city should consider eliminating parking minimums for developers who build up vs out.
- **Additional Accessible Parking Options**
 - Having more accessible parking for elderly/those who need it.
 - Not enough wheelchair accessible spaces.
- **Need More Amenities / Attractions**
 - I don't think walking in downtown Meridian is an issue. More concerned about the potential development, housing, and making downtown Meridian a desirable destination.
 - Too much density. Not enough open space. Nothing attractive that I want to visit. I go to post office and vote. That's it.
- **Additional Public Transit**
 - More public transport.
 - More buses [...]. I'd come down for a drink, but I'm not going to drive for that.
- **Improved Bicycling Options**
 - [...] Better bike routes please.
 - [...] Could use more bike facilities!
- **Railroad Tracks Cause Issues**
 - Train tracks do not help!
- **Sidewalk / Street Maintenance**
 - Stripes need to be repainted more often.
- **Love Meridian!**
 - I love it that city of Meridian is asking for peoples input.
 - No changes needed at this time.
 - We love coming to downtown Meridian (over Boise). Parking is easy and free, everything is walkable, and we love the cozy feel of the Downtown.
 - Don't lose hometown fun place to be feel.
 - It's laid out very well for walking - great sidewalks, crosswalks, speed limits, etc.

9.8 The Parking Experience – Key Themes

- **There are growing conflicts between the short and medium-term parking needs of customers, the all-day needs of employees, and the all-day/overnight needs of Downtown residents.** While time limits serve as a helpful tool for prioritizing some on-street parking areas for customers, there remain many unrestricted areas in or near Downtown where customers, residents, and employees all compete for limited parking. Some business owners, in particular, were concerned with all-day parking taking up parking that should be prioritized for customers.
- **Many employees are unsure where they should park.** While those with easy access to free off-street parking (61% of downtown employee respondents) report few parking concerns, employees of businesses with limited off-street parking in areas with on-street time restrictions note concerns about where they can safely park. Loading/unloading gear is also a concern for employees of Downtown businesses with on-street time restrictions.
- **More than 75% of visitors noted dining as a key reason for visiting Downtown Meridian, and the evening dining hours were consistently highlighted as a challenging time.** Those familiar with the area state that parking is available at these times. However, visitors less familiar with the Downtown tend to express frustration when they have to circle multiple blocks to find parking.
- **Pedestrian safety and crossing improvements are a key priority.** Downtown employees are particularly familiar with the most challenging crossing locations. There is a general feeling that walking in Downtown is generally a pleasant experience (rated 3.9 out of 5.0). Slowing traffic and improving crossings will make parking more than a block from Downtown destinations easier to feel safe.
- **There is a perception that new development will create significant parking constraints.** Even those who do not feel parking is a major challenge now tend to express concerns that the number of new developments coming online in the coming years will create significant parking pressure.
- **Enforcement improvements are desired.** There is a perception that many time-limited parking areas are poorly enforced, and signage in off-street parking areas is often ignored.
- **Parking during events is commonly perceived to be constrained.** Many respondents who otherwise feel parking availability is adequate still see constraints during events.
- **Wayfinding, signage, and clearly marked shared parking options were highlighted as potential improvements to make better use of available parking areas.** Visitors are often unfamiliar with public parking options and would benefit from improved public parking signage.
- **Improvements are desired for those with mobility limitations.** There is a perception that there are few accessible parking options and inadequate curb ramps, and parking two or more blocks from a destination is a challenge for those who require a walker or wheelchair. 5% of survey respondents indicated that they make use of a disability placard.
- **The size of on-street parking stalls was noted as small, given the number of large trucks.** Many visitors noted that vehicles often extend into the travel lanes, and some drivers feel there is inadequate space to park and safely open their doors.

Appendix F: TP #6 – Emerging Technologies in Parking

10.0 Emerging Technology

Meridian's Downtown parking system does not currently warrant a significant investment in new or emerging parking technologies. With a little under 300 time-limited on-street parking spaces, Meridian's focus in the near term can be on parking management fundamentals. Internal organization, defining roles and responsibilities, establishing an ongoing plan and budget for data collection, and effective enforcement are the areas where Meridian will gain the most value.

However, as Meridian grows and parking constraints emerge, a variety of parking management technologies could be considered to help serve an increasing number of vehicles per parking stall. This memo includes an overview of various parking technologies that parking management staff may find helpful as a reference when considering investments in the parking program.

Below is a brief overview of the technologies that Meridian may wish to consider in the near to mid-term.

- **Short to Mid-Term**
 - Consider Handheld License Plate Recognition Devices for Enforcement (**Section 5.2**)
 - Consider Adopting On-Street EV Charging Guidelines in Residential Areas (**Section 7.2**)
- **Mid to Long-Term**
 - Consider Access Point Counters (**Section 2.3**) for any publicly owned lots where Meridian would like to open for general access use
 - Consider Adopting On-Street Commercial EV Charging Regulations in Commercial and Mixed-Use Areas (**Section 7.1**)

All other technologies in this memo are provided for future reference and are not recommended until additional constraints emerge in the parking system.

10.1 Parking Data Collection

Collecting parking occupancy data in real-time can:

- Build a robust database of parking data that can be used for more effective parking management practices (e.g., parking pricing adjustments, time limit adjustments, and additional enforcement)
- Provide a continuous stream of parking duration of stay data, a valuable tool for enforcement.

This section first addresses the current options for collecting real-time availability. Then, **Section 10.2** discusses how this data can be shared in real-time with users through dynamic signage or applications/websites.

A. Wireless Parking Space Sensors

- **Uses:** On-street (primarily)

Wireless parking sensors are most commonly applied in on-street environments or, in limited applications, where it is not feasible to track vehicles entering an existing off-street lot or garage.

To collect real-time data using this method, a sensor is installed in each parking stall using either an in-ground sensor (requiring drilling into the pavement during installation) or a surface-mounted one. Some vendors also offer a sensor that utilizes directional radar, which can be mounted anywhere near a parking stall (such as on the pole of single-space meters or overhead). In each type of application, data is communicated wirelessly, and the built-in batteries are intended to function continuously for several years. The sensors detect when a vehicle is present and communicate to a central server that the space is occupied and the duration of the parking event.

The most common issues that should be discussed with vendors prior to installation include sensor accuracy, detection and transmission latency (i.e., transmission delays), interference from other electrical sources, the ability to handle all types of spaces (parallel, diagonal, and perpendicular) and all types of vehicles (motorcycles, oversized trucks, etc.), and perhaps most importantly, reliability. Presently, the greatest obstacle to the wide adoption of sensors is life-cycle cost, as sensors have both upfront and ongoing per-space costs. Additionally, weighing the potential benefits of space detection (customer satisfaction, system efficiencies, additional data, etc.) cannot always clearly and directly offset the installation and maintenance costs in either small or large-scale applications. However, as additional case studies emerge, that dynamic may become more apparent over the next few years.



Benefits

- **Customer:**
 - Data collected at the individual stall level provides the greatest amount of detail regarding parking space availability when shared with mobile apps;
 - Almost invisible to the user with little to no street clutter.
- **City:**
 - Wireless approach allows for rapid installation (some vendors promote install times of 30 seconds per stall, even for in-ground sensors);
 - Individual stall data can automatically trigger overstay violation alerts to enforcement officers for improved enforcement efficiency;

- Collects space occupancy and duration at the individual stall level, which can be rolled into reports at the block face or area level with statistics such as average occupancies, average duration of stay, and violation rates.

Drawbacks**■ Customer:**

- Potential for confusing and erroneous data when sensors malfunction or do not report stall availability accurately.

■ City:

- Requires striping of each individual stall to ensure vehicles park over only one sensor.
- Ongoing maintenance and reliability concerns that often need to be addressed rapidly when the data is made publicly available.
- High cost option when factoring in ongoing maintenance.
- Large amounts of data will only prove valuable with in-house or contracted support to process and interpret the data.
- No unique vehicle information (license plate, make, or model) is collected, so this approach cannot track data such as “repark movements.”

Although sensors are often high cost with maintenance and reliability issues⁶³, there are several case studies around the country about using the technology on-street⁶⁴. The sensors can be deployed rapidly with multiple vendors available. However, no precise data or case studies suggest that such systems have increased on-street customer trip activity, resulting in revenue generation necessary to cover the cost of the technology.

Vendors

- Nwave: <https://www.nwave.io/smart-parking-sensor/>
- CivicSmart: <https://www.civicsmart.com/vehicle-detection-sensors>
- Nedap: <https://www.nedapidentification.com/products/sensit/>
- Fybr: <https://www.fybr.com/smart-city-platform/parking/>

B. Camera-based Parking Space Detection

- **Uses:** On-street or Off-Street

Camera-based systems are rapidly emerging as an alternative to individual space sensors, as a single camera can cover many parking spaces. A camera-based approach can be used either on-street or within off-street lots. This approach uses automated processing techniques built on artificial intelligence to determine when a vehicle has parked, in which stall, and for how long. In this application, the camera

⁶³ San Francisco, CA deployed 8,200 on-street sensors in 2011, and a detailed description of the reliability issues and review of the sensor performance can be found at: http://sfpark.org/wp-content/uploads/2014/06/docs_sensorevaluation.pdf

⁶⁴ Los Angeles, CA, Washington, DC, Fort Collins, CO, Columbus, OH, El Paso, TX, Santa Monica, CA, Westerville, OH, and Colorado Springs, CO have on-street sensors.

does not need to have a view of the license plate, as artificial intelligence can identify each vehicle as “unique” without relying on a specific unique ID, such as a license plate.

While this approach has the potential to provide an alternative to hardware installed in or above each parking stall, the technology is still emerging and primarily deployed in surface lots where the types of parking events (and human behavior) are more limited.⁶⁵ Camera obstructions (large vehicles blocking small vehicles, for example), variable vehicle types, and unexpected behavior (such as illegal parking) may limit the reliability of these systems, particularly when applied in complex on-street environments.



Benefits

■ Customer:

- Data collected at the individual stall level, providing the greatest amount of detail regarding parking space availability (when shared with parking apps/signs/guidance systems);
- Almost invisible to the user with little to no street clutter.

■ City:

- Does not necessarily require each on-street stall to be striped;
- Potential for a lower cost than sensor technology, depending on the area covered by each camera;
- Individual stall data can automatically trigger overstay violation alerts to enforcement officers for improved enforcement efficiency;
- Collects space occupancy and duration at the individual stall level, which can be rolled into reports at the block face or area level with statistics such as average occupancies, average duration of stay, violation rates, etc.;
- Video feed can confirm overstay violations or check for unexpected reports or inconsistencies when they arise (fewer vehicle counts than expected, etc.).

Drawbacks

■ Customer:

- Potential for confusing and erroneous data when cameras do not report stall availability accurately.

⁶⁵ In off-street formats, it may still be more cost effective to use entry/exit lane counters, particularly if occupancy is the key metric a city intends to measure.

- **City:**
 - Large amount of data will only prove valuable with in-house (or contracted) support to process and interpret the data;
 - No unique vehicle information (license plate, make, or model) is collected, so this approach cannot track data such as “repark movements.”

With a camera-based approach, maximizing the number of stalls visible from a single camera helps to save costs, meaning on-street parking areas with only a few metered stalls may come with a higher cost per stall.

Vendors

- MiStall: <https://mistall.com/>
- Parking Detection: <https://www.parkingdetection.com/>
- Parklio: <https://parklio.com/en/parking-solutions/detect>

C. Access Point Sensors

- **Uses:** Off-Street Only

Unlike in complex on-street environments, most off-street facilities have very few entry and exit points, making them ideal areas to keep a running tally of occupancy based on vehicle entry and exit counts. Smart sensors (embedded into speed humps or directly in the roadway surface) can count each vehicle entering and exiting the facility. If no other ways exist to access the lot and the total space count is known, this low-cost approach can calculate the number of spaces available in real time. Alerts can be provided to drivers (either through signage or a mobile application) when a facility is known to be full or close to full.

For parking managers, the data can provide accurate reports about entry and exit volumes (and, therefore, continuous occupancy information for the entire facility). However, the approach does not provide data about individual parking sessions (such as duration of stay) or vehicle information (license plate, permit information, etc.). If this type of information is desired, then “sensor” or camera technology formats are better options.



Benefits

- **Customer:**
 - Data is highly reliable compared to other methods that may falsely show an open parking space;
 - Does not collect information about each vehicle, minimizing privacy concerns.
- **City:**
 - Most common form of vehicle occupancy information collected in off-street formats, a long-used industry standard;
 - Very cost-effective approach for real-time off-street occupancy information;

- Data can be programmed to only report in tiers, such as “close to full” or “full,” minimizing the need to maintain perfect accuracy at the individual stall level;
- Provides additional information about how vehicles access facilities (with multiple entry points) that cannot be done with individual space sensors.

Drawbacks

- **Customer:**

- Does not provide navigational assistance to individual stalls.

- **City:**

- Costs increase when there are multiple entry and exit points;
- May require installation of a physical barrier between entry and exit lanes to ensure accurate counts;⁶⁶
- When an off-street facility has several parking stall types (time-limited, permit only, etc.), the system cannot provide data about which types of stalls are available⁶⁷;
- Incorrect reads can lead to systematic under or overreporting of occupancy until the system is reset or recalibrated;
- The data cannot be used to track the duration of stay, repark movements, or any unique vehicle information (such as license plate).

Vendors

- Parking Logix: <https://parkinglogix.com/>

D. License Plate Recognition

- **Uses:** Off-Street Only

If the duration of stay and user type are also of interest in off-street facilities, fixed LPR can be installed at each access point. The system would function by counting each vehicle entering and departing the facility and storing the vehicle’s license plate to measure the duration of stay and any other relevant information linked to the license plate (permit, paid status, etc.). Depending on the size of the facility, this approach also has the potential to be more cost-effective than monitoring each stall while still providing duration of stay information. Additionally, when combined with electronic permitting and/or pay-by-plate, manual enforcement patrols could potentially be eliminated and replaced with on-demand enforcement (automatic alerts sent when violators are detected) or 100% automated enforcement with citations issued and mailed automatically.

LPR is typically most reliable when traffic is funneled through specific travel lanes, ensuring the license plate of each vehicle passes through the field of view of the camera. In surface lots without access

⁶⁶ This is called “slotting” a vehicle. This is usually accomplished by creating separated lanes (e.g., traffic islands) that ensure that entries and exits are valid and certified. A common element of such systems are traffic spikes in exit lanes to discourage wrong way entries. Without such slotting, some vehicles may attempt to enter an exit (or vice versa) contributing to inaccurate counting. Gated entries and exits (with in-lane loop detectors) are also a form of vehicle slotting.

⁶⁷ Unless additional access point sensors are added to internal areas that contain specific parking stall types.

control, it may be necessary to install lane dividers to ensure vehicles enter and exit the facility in predictable ways.

Benefits

- **Customer:**
 - When combined with other license plate-based data (such as pay-by-plate and electronic permitting), there is some potential to communicate the types of stalls available in real-time in a mixed off-street facility (metered stalls, permit stalls, etc.).
- **City:**
 - Depending on the size of the facility, likely the most cost-effective method to collect continuous occupancy *and* turnover data in a specific off-street area;
 - Data can be programmed to only report in tiers, such as “close to full” or “full,” minimizing the need to maintain perfect accuracy at the individual stall level;
 - Potential to reduce enforcement costs by eliminating the need to include some off-street facilities from regular routes;
 - Provides additional information about how vehicles access facilities (when there are multiple entry points) that cannot be measured at each stall.

Drawbacks

- **Customer:**
 - Potential for privacy concerns by continuously recording license plates;
 - Does not provide navigational assistance to individual stalls.
- **City:**
 - Costs increase when there are multiple entry and exit points;
 - May require installation of a physical barrier between entry and exit lanes to ensure accurate counts;
 - Incorrect reads can lead to systematic under or overreporting of occupancy until the system is reset or recalibrated;

Vendors

- Passport: <https://www.passportinc.com/product/parking/>
- Flowbird: <https://www.flowbird.group/solutions/off-street-parking/>
- Parklio: <https://parklio.com/en/parking-solutions/anpr>

10.2 Guidance and Wayfinding Systems

Collecting real-time parking information has several potential benefits for parking management and enforcement applications. However, for the traveling public, the most significant advantage of collecting real-time data is the ability to help direct drivers to blocks or parking lots with available parking. This section highlights the various ways real-time data can be shared with the end user in real-time.

Collecting parking occupancy data in real-time and sharing the data publicly can:

- Improve customer satisfaction,
- Reduce congestion associated with vehicles searching for parking,
- Redistribute demand between higher and lower demand areas.

A. Dynamic Signage

The most common way real-time data is communicated to users is with dynamic signage (within the public right of way or large off-street facilities). Boise, ID, Portland, OR, Seattle, WA, and San Jose, CA, are good examples.

Real-time parking availability information can be displayed on customized digital boards/blade signs at the building entry plazas or remote locations to downtown (such as along major roadways). The signs provide guidance information (an address or facility name) and information on real-time stall availability.



Such systems have been extremely effective both from a traffic/congestion point of view and in terms of stall management. Customers find the systems to be highly useful and “customer friendly.” Not including the real-time data systems discussed in previous sections, digital signage costs can range from \$10,000 for on-site signage to \$25,000 or more for signage off-site, within the right-of-way.

Programs that are the most successful tie into a parking “brand.” This brand is incorporated into both the on-site signage and the rights-of-way signage. This provides customers with a visual cue that translates from their first encounter in the roadway to identifying a parking location conveniently. For instance, Portland (SmartPark) and Seattle (e-Park) have rolled out this type of branding link.



Dynamic signage is almost exclusively used to direct drivers to available off-street parking facilities. Although real-time on-street parking data could be displayed on dynamic message signs, this is typically not a practical application due to the number of signs that would be needed.

B. Mobile Applications / Online Mapping

While dynamic signs are fixed and visible to anyone traveling along the route, the amount of data they can quickly communicate is very limited. For large systems with both on-street and off-street real-time data, a mobile application or online map is likely the only reasonable way to communicate where drivers can expect to find parking across a large area. For example, real-time parking heat maps can show parking availability by color coding by individual space, block, facility, or area. Drivers who can quickly glance at a map to determine where to park are much less likely to spend time circulating, reducing emissions, traffic congestion, and driver frustration.

Vendors of the real-time parking data collection tools discussed above will also have a variety of options available for reporting the data to the public. Data ownership is an important consideration before entering into any license agreement. To ensure the greatest amount of flexibility over time, cities may wish to anonymize the data and provide free public access to a real-time data feed that can be accessed by all types of users and software developers. This helps ensure all users have access to the data (not just users who download a specific app, for example) and can maximize the distribution of the information. Parking data that is only available through the vendor's parking app may have less utility than a data source that can be used by a wide variety of technology providers in creative ways.



Below are a few examples of how cities of various sizes display available real-time parking information on a web-based map. Many cities also have a city-specific mobile application, which requires users to download and install the app.

- Colorado Springs, CO: <https://colorado-springs.modii.co/v2/finder>
- Oakville, CA: <https://oakvilleparking.eleven-x.com/>
- Madison, WI: <https://www.cityofmadison.com/parking-utility/garages-lots/current-hourly-parking-availability>
- Newark, DE: <https://www.arcgis.com/apps/webappviewer/index.html?id=2db339cc672a49cf84dfe0d57503f255>
- Banff, Alberta: <https://banffparking.ca/ParkingMap/Details/Car>
- Halifax, Nova Scotia: <https://www.halifax.ca/transportation/parking/street-parking>

10.3 Electronic Permitting

Traditional daily, monthly, or annual parking permit programs have long relied on physical permits such as hang tags, stickers, or dashboard cards. While these permits come with little cost to implement, they can lead to inefficiencies in enforcement due to the need for enforcement officers to inspect each vehicle in violation to determine if a permit is present. While electronic permitting has several benefits to the customer, the approach is generally only cost-effective when combined with an LPR-based enforcement program.

A. Monthly/Annual Permits

As cities transition to enforcement technology that involves entering license plates to confirm payment (either through handheld devices or mobile LPR technology), it is often cost-effective to also transition to electronic permitting. All permits previously issued as stickers or hang tags could instead be linked to a license plate number, allowing officers in the field to quickly scan or enter a plate to confirm a valid permit for the specific zone.

When transitioning from hang tags to electronic permitting, one of the issues to address is the number of license plates that a single permit may serve. This is a key concern for customers who use a single permit in multiple vehicles. Most electronic permitting systems can be configured to meet the community's needs. As one example, the city could allow users to link several license plates to a single permit but communicate that only one vehicle is valid at a time.

Transitioning away from a paper-based permitting system can save administrative time and reduce costs associated with printing, mailing, and/or replacing permits. Adopting electronic permits linked to license plates can take time to establish and communicate effectively to the public, but it will likely save costs in the long term. A system that uses mobile LPR where all payments and permits are linked to license plates should be a long-term goal that can significantly improve efficiency once achieved. Achieving this goal will likely be an incremental process, preceded by other administrative and technological changes within the larger parking program.

Benefits

- **Customer:**
 - Able to purchase, pay, renew, modify, cancel, and even dispute tickets in a single online platform;
 - Eliminates the need to come in person for permits.
- **City:**
 - Permits can be processed with reduced staff time and printing costs;
 - Greatly improved enforcement efficiency when paired with mobile LPR (when all other "exceptions" are eliminated that required manual checks);
 - Works best when all other payment systems are linked to vehicle license plates.

Drawbacks

- **Customer:**
 - There is often some initial resistance when transitioning away from physical permits due to concerns about privacy (how the data will be used), how to transition the permit to a different vehicle, how to handle unique situations with guests, temporary vehicles, etc.;
 - Online permitting systems often shift the burden slightly to the customer to enter information correctly online (license plate, credit card, etc.) and understand all rules and regulations without going to a city office in person.
- **City:**
 - Potential for additional third-party vendor⁶⁸ (if not packaged with existing hardware or software system);
 - Upfront investment of costs and staff time to replace existing permitting processes with all electronic system;

⁶⁸ When system upgrades are made gradually over time with multiple different vendors, it is common to experience compatibility issues between various systems, as each vendor is only responsible for their specific hardware/software package.

- May need to provide an initial period of fine forgiveness to smooth the transition while technical issues are addressed.

As an example of this type of system, Oregon State University maintains an online platform for managing permits. In addition to options offered to pay/appeal tickets, track fees, or modify vehicles when purchasing a

new permit or adding a vehicle to an existing permit, the graphic to the right is used to communicate how to enter license plate information correctly. This level of clarity is important with a license-plate-based permit and payment system to ensure the user understands how to enter their plate and feels confident they have provided the necessary information.

How to Input Your License Plate:



■ Vendors

- It is highly recommended to add electronic permitting as a service through an existing vendor (LPR enforcement vendor, mobile payment vendor, kiosk vendor, etc.) rather than as a standalone service.

B. Daily Permits

In many cities, travel patterns have shifted dramatically since March 2020, with remote work accounting for a significant proportion of work “trips,” reducing the need for daily, physical travel. With more variable schedules, there may be more opportunities to shift to daily permitting systems, where employees activate and use parking permits on an as-needed basis. Rather than pay for an unlimited parking permit, parking permits can instead come with a pre-loaded number of “sessions” to be used as needed by employees (or other users of long-term permit parking). Electronic permitting allows for the more seamless implementation of these types of programs, essentially enabling permit holders to “activate” a session as needed upon arrival at work or their destination.

Daily permits can function in the same environment as monthly or annual permits, enabling employees to stay beyond a posted time limit or park without paying a meter in paid parking environments. The major difference is the requirement that users activate their session each day. This requires significant outreach and education, multiple, convenient options for employees to activate the session (either through an app, mobile browser, text, at a kiosk, at a computer, or other method), and a robust enforcement program so that employees know failure to activate a session will likely result in a ticket.

Once a daily system is implemented and fully replaces monthly or annual permits, many flexible permitting and transportation demand management (TDM) strategies can be deployed that are not possible with other permitting programs. Just a few examples could include:

Refunds for unused days (applied as credits to future permits, raffles, transit tickets, etc.).
Variable pricing/session costs by day of the week (1.2 credits needed for higher travel days, such as Tuesdays-Thursday, or 0.8 credits required for lower travel days, such as Mondays and Fridays).
Caps on usage, requiring those who drive and park every day to pay a premium if desired.
Transferability of funds or credits to other modes of transportation.

Benefits

- **Customer:**
 - Able to tailor their parking permit to their specific needs;
 - Ability to track personal usage over time.
- **City:**
 - Robust dataset of usage for all permit holders, enabling the tracking of permit use each day;
 - Ability to design permit and TDM programs based on actual usage data;
 - Improved ability to manage demand from permits on a daily basis as constraints arise.

Drawbacks

- **Customer:**
 - Likely resistant to the added requirement to activate a parking session each day (compared to monthly/annual permits with no such requirement);
 - Concerns with daily tracking of behavior;
 - Much higher likelihood of a ticket from neglecting to activate a session;
- **City:**
 - Potential for abuse in both known and unknown ways as employees learn enforcement practices;
 - Requirement to maintain a very robust enforcement program to ensure daily compliance;
 - Maintenance of an online tool to activate/renew parking sessions that needs to be highly reliable.

Due to the drawbacks and management requirements for a daily permit program, this should only be implemented as part of a robust transportation demand management program (TDM) with specific goals identified. Seattle Children's Hospital⁶⁹ is one of the key examples of how the daily tracking of employee commute behavior has been implemented, and they tout this program as a key benefit for their employees. In general, however, transitioning from a monthly or annual permitting program to a daily program is likely to be met with significant resistance from employees who primarily drive to work.

10.4 Enforcement

A. Mobile License Plate Recognition Systems

Mobile License Plate Recognition (LPR) is an enforcement technology that relies on cameras mounted to enforcement vehicles, allowing the system to automatically scan the license plates of parked vehicles while driving around an enforcement area at roadway speeds. The captured data typically records (at minimum) license plate, timestamp, and GPS location (or block face ID), which allows the system to automatically track how long each vehicle is parked on each block face. When partnered with electronic permitting and license-plate-based payment systems, the system can also automatically check for

⁶⁹ <https://www.seattlechildrens.org/careers/benefits/>

payment status, permit, and other issues such as stolen vehicles, vehicles of interest, outstanding fines, etc.

Mobile LPR can cover a much larger area than a single officer who must manually enter plates or visually inspect each vehicle, which can significantly increase the efficiency of a single officer in the right context. However, the approach should be considered a “sampling” technique, as field issues will inevitably prevent Mobile LPR from capturing every single vehicle (closely spaced vehicles, blockage from obstructions, erroneous reads, etc.). However, an officer using a mobile LPR system that misses 10% to 20% of vehicles operating in an area with limited traffic is still likely to collect significantly more (perhaps 10x) vehicle observations than a single officer checking each vehicle individually.



In addition to added efficiency, mobile LPR can also increase revenue through improved identification of violations, which, in turn, leads to more efficient parking management. Additionally, it can create a database of observations that can be used to make daily, weekly, monthly, and yearly comparisons (recognizing that mobile LPR data represents a sample rather than 100% of vehicle observations).

Benefits

- Allows each officer to cover a much larger number of parking spaces per shift (increases in efficiency depend on several factors, including levels of traffic congestion);
- Flexible mounting options allow devices to be configured to smaller vehicles if desired (three-wheel enforcement vehicles, for example);
- The capture rate and citation revenue will likely increase compared to manual enforcement.

Drawbacks

- Significant error/miss rate means route data should be treated as a “sample” rather than 100% observation set along a route, which means the data is not reliable for turnover studies;
- May require supplemental officer on foot checks to ensure patterns of missed reads do not lead to systematic abuse by users who take note of the limitations of the system or other enforcement patterns⁷⁰;
- Costs to set up the system, calibrate and maintain cameras, train officers, troubleshoot issues as they arise, etc.;
- Likely need an ongoing maintenance contract with the vendor.
- It may require the development of data usage and retention policies to communicate to the public how the license plate data will be used⁷¹ and some additional administrative time to respond to data requests.

⁷⁰ Frequent users of a parking system, particularly those who park daily, often are able to note enforcement patterns, and observant users may be able to pick out specific parking areas that are systematically missed by enforcement systems.

⁷¹ For example, OSU maintains a “LPR Data Collection and Privacy Policy” on their website, indicating that all records are purged every 30 days, and registered users may request a report detailing what, if any, records exist for their vehicle in the OSU LPR system.

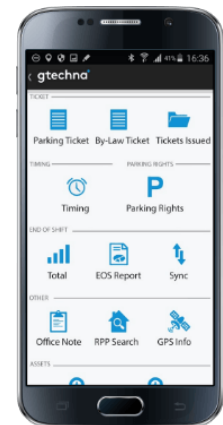
Given LPR's upfront and ongoing costs, it is important to consider how the various other parking technologies will work with the LPR system (and vendor) selected. When investing in LPR, the greatest efficiencies can be achieved when all systems are gradually migrated to a license plate-based approach (including payment systems, permit systems, etc.). In other words, LPR should be considered an integral part of the overall parking management structure rather than simply an enforcement tool.

Vendors

- Passport: <https://www.passportinc.com/lpr-product-details/>
- Gtechna: <https://gtechna.com/>
- Schweers: <http://www.schweers.com/>
- T2: <https://www.t2systems.com/parking-systems-solutions-lpr/>

B. Handheld License Plate Recognition System

While mobile LPR requires specialized cameras mounted and calibrated according to technical specifications (ensuring effectiveness when traveling at roadway speeds), handheld LPR refers more broadly to using license plates as a unique identifier in all enforcement observations. Fixed cameras (at the parking lot/garage entry/exit points), specialized handheld LPR devices, or LPR software loaded onto phones/tablets that use the device's built-in camera can all work together on the same platform. When considering transitioning to license plate-based enforcement (payments, permits, etc.), selecting a vendor that integrates the entire system is a key consideration.



Handheld LPR can serve either in partnership with mobile LPR or as an initial step in upgrading specialized handheld enforcement equipment. If license plates are scanned (or entered manually when needed) as part of every vehicle observation, license plate-based payment and permitting systems can be phased in over time.

Benefits

- Link all observations to a license plate, GPS location, and timestamp, allowing more license plate-based management over time.
- Flexible software structure that can be applied using existing hardware (including tablets or phones) in various contexts.
- Potential to partner with mobile LPR to focus on vehicles or block faces not readily captured using a vehicle-based system.

Drawbacks

- Although the scan function saves time entering license plates, the overall time needed to log individual vehicle observations by hand may not change significantly (depending on the current approach).
- May require an overhaul of the entire enforcement system to adopt new processes.

A Note on “Electronic Chalking”

Some vendors of handheld enforcement devices will promote their ability to electronically chalk tires by having the enforcement officer take a picture of a tire to monitor the valve stem position. While the approach can effectively check whether a vehicle has moved and returned to the same location since the last observation, it is not error-proof (at least a 5-10% error rate). It also adds an extra step in each vehicle observation and is likely to result in at least some percentage increase in challenges to citations.

If tire chalking was a practice previously used to determine if a vehicle moved between observations, it is highly recommended that this process be replaced with simply recording the license plate, timestamp, and blockface ID (which can be done automatically with any handheld LPR device), and update the City’s code language if needed to prevent reparking on the same block face (or block, or within a set distance, etc.). Allowing a driver to depart and return to the same parking space (or block face) to extend the parking session is extremely difficult to track from an enforcement perspective and does not promote true turnover as intended by time limits. Clear code language that indicates a vehicle may only park for the time limit specified on the block face (or another area) once per day (or once every 4 hours, etc.) prevents the need to monitor the valve stem position through electronic chalking or other means.

In general, enforcement practices are most effective when they serve key parking management priorities, such as promoting turnover, and valve stem tracking often reduces the efficiency of each enforcement officer without providing much benefit in service of promoting turnover.

Vendors

- Passport: <https://www.passportinc.com/lpr-product-details/>
- Gtechna: <https://gtechna.com/>
- Schweers: <http://www.schweers.com/>
- T2: <http://www.t2systems.com/solutions/enforcement>

10.5 Parking Payment Technology

A. Multi-Space Meters

Multi-space meters accept multiple payment options at a single kiosk (typically credit cards, bills⁷², coins, pass cards, coupons, and, in some cases, mobile payment such as Apple Pay/Samsung Pay/Google Pay). Multi-space systems typically use one of three format options, which each have advantages and disadvantages for both cities and the users of the system:

Pay-and-Display

In a pay-and-display multi-space meter system, users typically pay for their parking session at a nearby kiosk, and a printed receipt must be displayed within their vehicle for the duration of the session. Each kiosk typically serves approximately 8-10 stalls and requires the closest spacing of kiosks because users must return to their vehicle after paying. This is the most commonly used format for multi-space meter

⁷² Many jurisdictions choose not to include a bill-taker option due to potential maintenance costs (i.e., jamming).

systems across the country, and a few nearby examples include Missoula (MT), Seattle (WA), Vancouver (WA), Hood River (OR), and Salem (OR).

Benefits

- **Customer:**
 - Use is intuitive; most customers find directions easy to follow (to date, the most common format for on-street multi-space meters);
 - Physical confirmation of payment;
 - Allows customer to relocate their vehicle to a different parking stall within the same district using the leftover time already purchased.
- **City:**
 - Allows for confirmation of payment with a visual check;
 - Can be used with or without space delineators.



Drawbacks

- **Customer:**
 - Requires customer to return to the vehicle to display payment receipt;
 - Specific location on the vehicle to display receipt can be confusing;
 - With no electronic confirmation, there is some potential for receiving a ticket from an incorrect display or ticket falling on the floor of vehicles, etc.;
 - Extending stay requires the customer to return to the kiosk and re-display the receipt in the vehicle.
- **City:**
 - Paper receipts require ongoing maintenance;
 - Some potential for fraudulent receipts;
 - Some potential for dispute due to incorrect payment display (no parking enforcement verification process);
 - Requires visual inspection of the vehicle for payment receipt by enforcement personnel and is not fully compatible with mobile license plate recognition (LPR)-based enforcement (see **Section 10.4** for a more detailed discussion of LPR).

Pay-by-Space

In a pay-by-space multi-space meter system, users typically pay for their parking session at a nearby kiosk using a unique parking space number, which can be displayed on a sign or painted on the pavement. Because users are paying for a specific parking stall, they do not need to return to their vehicle to display a payment receipt. This format is more commonly used in off-street applications; however, Washington Park in Portland, OR (which serves the Zoo, Forestry Center, and Japanese Gardens) previously used this format, with space numbers painted in each stall (since transitioned to pay-by-plate).

Benefits

- **Customer:**
 - Easy to understand system;
 - Does not require the customer to return to the vehicle to display payment confirmation;
 - Allows for extension of a session from any kiosk without returning to the vehicle as a receipt displayed within the vehicle is not required (enforcement officers simply check to see which spaces have active paid parking sessions and which do not).
- **City:**
 - Each station can cover a larger number of spaces compared to pay-and-display as drivers do not need to return to their vehicle;
 - Does not *require* a paper receipt, reducing paper costs and maintenance of printers;
 - Allows for efficient enforcement by monitoring which parking spaces are in an unpaid state without checking each individual vehicle.
- **Drawbacks**
 - **Customer:**
 - Requires customer to remember specific parking stall before using payment kiosk;
 - Some potential for receiving a ticket due to payment for an incorrect space number;
 - No ability to relocate vehicle using leftover paid time.
 - **City:**
 - Significant maintenance costs to mark and maintain individual stalls (through pavement markings and/or signage);
 - Some potential for dispute due to payment for incorrect space.

Pay-by-License Plate

In a pay-by-license plate multi-space meter system, users typically pay for their parking session at a nearby kiosk using their license plate number. Because their license plate is used by enforcement to confirm payment status, they do not need to return to their vehicle to display a payment receipt. Pay-by-license plate is used by most pay-by-phone applications, such as Passport and ParkMobile, and is becoming more widely used for kiosk applications as well (Missoula, MT, Helena, MT, Portland, OR, etc.)

Benefits

- **Customer:**
 - Does not require the customer to return to the vehicle to display payment confirmation;
 - Allows for extension of a session from any kiosk without returning to the vehicle.
- **City:**
 - Each station can cover a larger number of spaces compared to pay-and-display as drivers do not need to return to their vehicle;
 - Does not require a paper receipt, reducing maintenance of printers;

- Fully compatible with LPR enforcement, allowing for efficient enforcement that can communicate with electronic permitting processes.

Drawbacks

- **Customer:**
 - Requires the customer to remember license plate before using the payment kiosk;
 - Some potential for receiving a ticket from paying for an incorrect license plate or entering the plate incorrectly.
- **City:**
 - On-meter signage is needed to communicate the need to record license plate;
 - Requires an enforcement system capable of checking payment status by using license plates in real-time.

Each of these multi-space meter options can work with pay-by-phone applications as an additional option for repeat customers. Standalone pay-by-phone systems are often less desirable for users who will only park once or for only a few days in a row, such as tourists or visitors from out of town (unless the platform is frequently used in other cities and adoption levels are high). Signage and integrated communications systems would need to be implemented to ensure that customers are aware that pay-by-phone is an option and to guide users on how to establish start-up accounts.

A credit-card-only system is usually lower cost. In contrast, combination cash and credit card systems are more costly to implement and manage because cash must often be collected and processed manually. The systems can be hard-wired to electrical infrastructure or solar-powered, depending upon the existing electrical infrastructure and the amount of sun in designated areas. The solar power option has reduced costs and is highly sustainable in the right environment.⁷³

There are many vendors in the marketplace, including:

Vendors

- IPS Group: <https://www.ipsgroupinc.com/>
- T2 Systems: <http://www.t2systems.com/home>
- Flowbird Group: <https://www.flowbird.group/>
- MacKay: <https://www.mackaymeters.com/index.php/products/multi-space/>

⁷³ These systems have proven highly reliable in Pacific Northwest climates (year-round).



- Amano McGann: <https://amanomcgann.com/>

B. Single-Space Meters

Single-space meters have rapidly evolved from traditional coin-operated meters. Now, single-space meters allow for not only coins but also credit/debit cards, tokens, and pay-by-phone applications. They can be hardwired into a power source or utilize solar power technology. Further, data can be wirelessly networked to a database system to provide real-time information. Several different models with varying price points can typically be retrofitted on existing poles. Customers often prefer single-space meters for their convenience, particularly when paired with a pay-by-phone option.

Benefits

- **Customer:**
 - Able to pay at the parking stall, eliminating the need to seek out a kiosk;
 - Clear visual confirmation that parking has been paid.
- **City:**
 - Enforcement flexibility, through quick visual inspection or through an online portal that helps direct enforcement officers to unpaid stalls;
 - Allows for phasing in of new technology on older systems with coin-operated meters.



Drawbacks

- **Customer:**
 - Visual street clutter within the sidewalk pedestrian amenity space;
 - No ability to relocate vehicle using leftover paid time.
- **City:**
 - Increased maintenance costs, including the increased need to collect coins and service batteries;⁷⁴
 - Can lead to additional enforcement burden if a pay-by-phone system is deployed without fully integrating with the smart meters—enforcement would need to first visually check the meter, and if the session shows as expired, they would then need to check the license plate to check for a payment made through a phone app;
 - Potential for reliability issues simply due to the greater number of devices deployed throughout the city.

As with multi-space meters, single-space smart meters can also pair well with pay-by-phone applications, requiring the user to enter a specific space number (typically using a sticker placed on each meter) or entering their license plate. Example cities with single-space smart meters include Boise, ID; Colorado Springs, CO; Laguna Beach, CA; and Olympia, WA.

⁷⁴ A typical multi-space meter (on-street) maintains one battery to service approximately 8 -10 spaces. Each single space meter has a unique battery. Battery costs can be significant.

Vendors:

- IPS Group: <https://www.ipsgroupinc.com/>
- Civic Smart: <https://www.civicsmart.com/>
- MacKay: <https://www.mackaymeters.com/index.php/products/single-space-solutions/mkbeacon/>

C. Pay-by-Phone (Mobile Payment)

Pay-by-phone as a means to pay for parking is typically deployed as an additional option within an existing paid parking system. Systems often offer multiple payment options via phone app, website, phone call, or text message. Regardless of the specific method used, the driver typically uses the system to enter their meter number or license plate, enter payment information, and receive confirmation. The user can extend a parking session at any point from their phone without returning to their vehicle (provided they are staying within the posted time limit). Generally, a fee is added to the cost of the parking stay, which goes to the mobile payment vendor, assuring the city receives full payment for parking. This means most pay-by-phone programs are cost-neutral to the affected city.



Users who frequently park in a city often find these systems very convenient, particularly if using an application that stores both their license plate and payment information, allowing for payment in just a few clicks. Due to the time needed to set up an account, enter a license plate (if required), and enter payment information, these systems are typically less convenient for one-time use than paying at a parking meter or kiosk. As such, they are currently best suited as an additional system feature with other payment options available. Some cities have explored the feasibility of rolling out entirely mobile payment-based systems. Still, few large-scale deployments of exclusively mobile payment are currently in operation in the United States. Columbus, Ohio, and Buffalo, New York, each have paid parking areas that *require* users to pay online.

Benefits

- **Customer:**
 - Able to pay or extend their session from anywhere, eliminating the need to seek out a kiosk;
 - Able to store information to pay efficiently, which is particularly useful for drivers who park in the area frequently.
- **City:**
 - Able to potentially expand payment options without having to upgrade existing equipment immediately;
 - Potential to pass the system costs on to the user through a use fee;
 - Can work well with other systems that use license plates for payment and/or permitting.

Drawbacks

- **Customer:**
 - More time consuming to pay if only using the system once or twice;
 - Not all users will have the ability or desire to navigate the system using a smart phone (security concerns, lack of a smart phone, lack of knowledge of apps, time to set up account information, etc.
 - When deployed with coin meters, some users will continue to be unable to pay with credit cards.
- **City:**
 - Potential for reduced enforcement efficiency (depending on existing payment options) if officers must check with the meter/kiosk and the mobile payment application to confirm payment;
 - Potential for additional third-party vendor⁷⁵ (if not packaged with existing hardware);
 - A signage and communication campaign will be needed to ensure effective implementation and continued user awareness of program availability.

Portland, OR, deployed Parking Kitty (built on Passport) in 2017 as an additional payment option within a pay-and-display environment (multi-space meters). In this mixed system, enforcement officers must check for pay-and-display receipts in vehicle windows and payments made through Parking Kitty by license plate. Over time, they are replacing pay-and-display kiosks with pay-by-plate kiosks to simplify enforcement.

Vendors

- Passport: <https://www.passportinc.com/product/parking/>
- Flowbird: <https://www.flowbird.group/>
- Pay-by-Phone: <https://www.paybyphone.com/>

10.6 On-Street Electric Vehicle Charging

Electric Vehicle (EV) charging is typically provided in off-street lots, garages, and driveways, out of the public right of way (ROW). However, with EV adoption rapidly expanding, many cities are beginning to explore how to regulate on-street vehicle charging. This will become more important in Main Street environments with limited off-street parking, and in residential areas where some homeowners and renters do not have a driveway or garage and must park on-street.

For context, EV charging stations are typically divided into three categories—Level 1, 2, and 3—based on the level of service and the speed at which they charge:

Level 1 chargers use typical electric outlets (120V) and typically take 8 to 12 hours to charge a vehicle fully. Many residents who charge overnight opt to use Level 1 charging because no special equipment is required.

⁷⁵ When system upgrades are made gradually over time with multiple different vendors, it is common to experience compatibility issues between various systems, as each vendor is only responsible for their specific hardware/software package.

Level 2 chargers require a higher level of service (240V) and typically take four to eight hours to charge a vehicle fully. Many commercial charging stations are Level 2, and some residents install Level 2 charging at home (same level of service as a clothes dryer).

Level 3 or DC fast chargers require a very high level of service (480V) and can charge a vehicle in as little as 30 minutes. Because Level 3 charging requires substantial upgrades, these are typically only found in commercial settings or along highways.

Level 3 chargers are not typically associated with on-street vehicle charging, and the remainder of this section focuses on Level 1 and Level 2 charging, as these are the types of charging stations most cities regulate in on-street contexts.

A. On-Street Charging in Commercial and Mixed-Use Areas

Allowing on-street commercial charging provides a key tool in facilitating the expansion of EV usage, but new regulations are required to allow a single operator to control a portion of the curb space so directly. Below are several guidelines that Meridian may wish to consider when implementing an on-street EV charging program:

Equipment: Focus on Level 2 (240v) equipment for on-street charging in the public right-of-way.

- L2 chargers have more flexibility in installation options (such as on utility poles), minimizing new impacts to sidewalks and the public right-of-way. L3 charging may be considered, but cities should first study the burden the power requirements of L3 charging would place on the local network and consider the potential need for significant infrastructure improvements to accommodate L3 charging.

Operators: Only allow companies that are already in the business of owning, operating, and maintaining EV chargers to install EV chargers in the ROW with a specific permit issued by the City.

- Commercial operators of EV charging equipment provide an ongoing point of contact for the equipment and are responsible for keeping the asset in a state of good repair for use by the public. Allowing residents or private groups to install equipment in the ROW could amount to privatizing public space.

Enforcement: Ensure that permits issued to private operators are clear that the ROW is owned and maintained by the City, and the City retains the primary responsibility for enforcing parking regulations.

- Additional regulations will be needed, such as a provision that parking in EV Charging Only spaces is permitted only for electric vehicles and plug-in hybrids that are actively charging (i.e., plugged into the EV charger), subject to the posted time limit. However, the space should not be dedicated to the private operator; they are simply the exclusive service provider. It may also be beneficial to clarify that EV Charging Only stalls will only be enforced during standard enforcement hours. Parking by non-EVs and long-term parking may need to be allowed outside of enforcement hours.

Time Limits: Restrict on-street commercial EV charging stations to areas of the City where on-street time limits are already in place.

- On-street charging in unregulated areas can lead to all-day or multiple-day use by a single vehicle. Additionally, implementing a time limit exclusively for one or two EV charging stalls is very difficult to enforce. Time-limited areas are typically in parts of the City with higher demands and a need for turnover, and on-street commercial EV charging stations can serve short-term EV parking and charging needs while maintaining turnover.

Location: Encourage EV Charging Only stalls on side streets, off main streets and busy arterials.

- There is often a need to maintain main streets as flexible spaces, with infrastructure that is flexible enough to allow for closure for street fairs and events, and able to respond to changing needs for transit service, bicycle routes, deliveries, and short-term parking. EV charging equipment, once installed, is effectively permanent, and side streets adjacent to main streets may be more appropriate to serve this need for on-street EV charging.

Monitoring usage is recommended to ensure the stalls are well used and continue to serve multiple vehicles per day without significantly reducing the general parking capacity for customers.

B. On-Street Charging in Residential Areas

In residential areas, the priority users are typically residents and their guests, and parking regulations generally focus on ensuring shared access for these users. In most cases, no on-street regulations are needed. Still, in some cases (when nearby commercial areas or institutions create spillover, for example), parking permit programs are necessary to allow for the implementation of time limits with exceptions for permit holders. Regardless of how the on-street system is regulated in residential areas, one key objective is shared access to the public ROW.

Allowing on-street EV charging in residential areas must balance this need for shared access with a desire by many EV owners (particularly those without a driveway or a garage) to have a “dedicated” space on-street to charge their vehicle. Most cities that allow on-street residential charging adopt general guidelines for the practice and make it clear that charging is only permitted if residents can safely run a charging cable from their house to their legally parked vehicle without attempting to permanently reserve parking for their private use. Below are several guidelines that Meridian may wish to consider in this context:

- **Only Allowed When a Resident Has No Access to Off-Street Parking:** Residents should be encouraged to charge their EVs off-street in a driveway or garage wherever possible. On-street residential charging guidelines were developed as a tool to allow residents who don’t have this option to safely charge their vehicle while parked on-street.
- **Level 1 Charging Only:** Only Level 1 chargers are allowed for home-based on-street charging. This allows for the use of standard extension cords and cord covers without excess risk to those on the sidewalk. Level 2 charging requires non-standard electrical service, which is more appropriate in off-street private settings or by commercial operators. Specific guidelines can be developed that show exactly how cords and cord covers can be used across a public sidewalk.
- **No Installation of EV Charging Equipment in the Right-of-Way:** Unlike in commercial and mixed-use areas where commercial charging stations can serve several vehicles per day, residential areas typically have low turnover. Residents and individuals should be prohibited

from installing EV chargers in the public right-of-way in front of their home to avoid any privatization of public space. Residents who prefer Level 2 charging or higher should use public on-street EV charging stations or off-street charging options.

- **No Reserved On-Street Parking:** No on-street parking spaces should be reserved by residents for the purpose of EV charging in front of their home. Parking is shared, and residents do not own the on-street ROW in front of their home.
- **Temporary and Removable Equipment:** The cord and cord cover should generally be removed from the public right-of-way when not actively charging an electric vehicle.

More flexible regulations may be needed in the near future, depending on how rapidly EV use expands. Allowing commercial EV charging stations in the public ROW in residential areas, for example, may be considered if the demand exists for this type of shared option.

10.7 Emerging Technology Summary

This technology review provides information on the types of technologies available within the parking and mobility industry and the benefits and drawbacks to consider before implementing them. This review is intended to serve as a reference document, as most technologies discussed will only be applicable or cost-effective within the context of a much larger parking management program. However, Meridian may wish to consider the following items in the near to mid-term:

- **Short to Mid-Term**
 - Consider Handheld License Plate Recognition Devices for Enforcement (**Section 5.2**)
 - Consider Adopting On-Street EV Charging Guidelines in Residential Areas (**Section 7.2**)
- **Mid to Long-Term**
 - Consider Access Point Counters (**Section 2.3**) for any publicly owned lots where Meridian would like to open for general access use
 - Consider Adopting On-Street Commercial EV Charging Regulations in Commercial and Mixed Use Areas (**Section 7.1**)

All other technologies in this memo are provided for future reference and are not recommended until additional constraints emerge in the parking system.